

Final Environmental Impact Report and Environmental Assessment

Imperial Solar Energy Center South

SCH# 2010061038

Conditional Use Permit: CUP #10-0011

Variance: #V10-0006

BLM Right-of-Way CACA-51645/CACA-52359

EA Number: 2010-64/2011-0007

98



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prepared for

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List of Technical Appendices

Appendix A: Notice of Preparation and Responses
(bound with EIR/EA)

The following are contained on the CD, which is attached to the back of this EIR/EA.

Appendix B: Traffic Impact Analysis
Prepared by LOS Engineering, Inc.
August 11, 2010

Appendix C1: Construction Air Quality Conformity Assessment
Prepared by Investigative Science and Engineering, Inc.
August 17, 2010

Appendix C2: Construction Greenhouse Gas/Global Warming Risk Assessment
Prepared by Investigative Science and Engineering, Inc.
August 19, 2010

Appendix D: Geotechnical Investigation Report
Prepared by Landmark Consultants, Inc.
May 2010

Appendix E: Construction Acoustical Site Assessment
Prepared by Investigative Science and Engineering, Inc.
August 19, 2010

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- Appendix F: LESA
Prepared by BRG Consulting, Inc.
August 2010
- Appendix G: Phase I Environmental Site Assessment
Prepared by Tetra Tech, Inc.
February 2010
- Appendix H-1: Preliminary CEQA Level Drainage Study
Prepared by Tory R. Walker Engineering, Inc.
October 4, 2010
- Appendix H-2: Preliminary Water Quality Report
Prepared by Tory R. Walker Engineering, Inc.
October 4, 2010
- Appendix I-1: Biological Technical Report
Prepared by Recon Environmental, Inc.
November 9, 2010
- Appendix I-1a: Solar Field Access Road Addendum to the Biological Technical Report
Prepared by Recon Environmental, Inc.
November 17, 2010
- Appendix I-1b: Mountain Plover Amendment to the Biological Technical Report
Prepared by Recon Environmental, Inc.
February 14, 2011
- Appendix I-2: Spring 2010 Rare Plant Survey Report
Prepared by Recon Environmental, Inc.
July 23, 2010
- Appendix I-3: Burrowing Owl Nesting Season Surveys
Prepared by Recon Environmental, Inc.
April 5, 2011
- Appendix I-4: Post Survey Notification of Focused Survey for the Southwestern Willow Flycatcher
Prepared by Recon Environmental, Inc.
July 30, 2010
- Appendix J: Project Design Features
Prepared by CSolar

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- Appendix K: Memorandum of Agreement among the Bureau of Land Management-California, the United States Army Corps of Engineers, The Department of Energy, LightSource Renewables, LLT and the California State Historic Preservation Officer, Regarding the Imperial Solar Energy Center South Project
Prepared by Bureau of Land Management

FOREWORD

This Final Environmental Impact Report/Environmental Assessment (Final EIR/EA) for the proposed Imperial Solar Energy Center South project (SCH No. 2010061038) has been prepared in accordance with the requirements of the California Environmental Quality Act (California Public Resources Code Section 21000, et seq., [amended 2007 and 2008] herein, CEQA) and the State of California CEQA guidelines, as amended February 16, 2010 (California Administrative Code, Title 14, Section 15000, et seq.) as well as the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq., herein, NEPA), the Council on Environmental Quality NEPA Regulations (40 C.F.R. Section 1500 et seq.), and the Bureau of Land Management (BLM) NEPA Handbook. The purpose of the Final EIR/EA is to provide the decision-making body, in this case the County of Imperial Board of Supervisors, the BLM responsible agencies, and the public with environmental impact information relative to the proposed Imperial Solar Energy Center South project. The County must consider the information contained in this Final EIR/EA prior to approving the proposed solar power project. The BLM must consider the information contained in the Final EA prior to making its decision whether to deny the proposed right-of-way grant, grant the right-of-way, or grant the right-of-way with modifications for the generation tie line of transmission line.

The Final EIR/EA contains all of the required contents as outlined in Section 15132 of the State CEQA Guidelines, including the following:

- The Draft EIR/EA or a revision of the Draft EIR/EA.
- Comments and recommendations received on the Draft EIR/EA either verbatim or in summary.
- A list of persons, organizations, and public agencies commenting on the Draft EIR/EA.
- The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
- Any other information added by the Lead Agency.

Pursuant to Section 15088 of the State CEQA Guidelines, the County and BLM has reviewed all comments received on the Draft EIR/EA. Responses to these comments are presented in *Comments and Responses*, as a separately bound volume of the Final EIR/EA.

Public and agency comments on the Draft EIR/EA and County responses to these comments are an important part of the CEQA process because they allow:

- Agencies and the public the opportunity to review and comment on the methods and analyses contained in the Draft EIR/EA.
- The ability to detect any omissions that may have occurred during the preparation of the Draft EIR/EA.
- The ability to check for accuracy of the analysis of the Draft EIR/EA.
- The ability to discover and respond to public concerns.

The Final EIR/EA includes revisions, including clarifications, corrections, and updated information based on these comments. These revisions to the original text are made in restatement (clean) format instead of in strikeout/underline format in order to enhance the quality of public and decision-maker review.

Standard For Recirculation/"Supplementation"

Recirculation

In light of the information provided in response to public review comments, the County considered the need to recirculate the EIR/EA pursuant to CEQA. CEQA Section 15088.5(e) requires that an EIR which has been made available for public review, but not yet certified, be recirculated whenever significant new information has been added to the EIR. The entire document need not be recirculated, if revisions are limited to specific portions of the document. The recirculated portions of document must be sent to responsible and trustee agencies for consultation and fresh public notice must be given in the manner provided for a draft EIR. New information is not presumed to be significant simply because it is new. Indeed, pursuant to State CEQA Guidelines Section 15088.5:

New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect . . . that the project's proponents have declined to implement.

State CEQA Guidelines, § 15088.5(a):

In order to be "significant," the new information must constitute one of the following:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponent decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(State CEQA Guidelines, §15088.5(a)(1)-(4); *Laurel Heights II*, 6 Cal.4th at 1120.)

The additional analyses provided in the Final EIR/EA as a separately bound volume, *Response to Comments*, elsewhere in the project documents, and any mitigation measures discussed or amplified in the responses to comments did not result in new or substantially increased significant impacts, and therefore no recirculation is required. It is common, and in most cases necessary, for responses to comments to amplify and elaborate on the analysis of an EIR/EA. CEQA anticipates this and such amplification does not

constitute significant new "information" unless it triggers one of the four categories described in State CEQA Guidelines Section 15088.5(a). State CEQA Guidelines Section 15088.5(b) provides that "recirculation is *not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications* in an adequate EIR." [emphasis added]. The responses to comments and associated analysis properly fall within State CEQA Guidelines Section 15088.5(b) and do not implicate State CEQA Guidelines Section 15088.5(a).

Supplementation

Under NEPA, "supplementation" is the term used to describe the process of recirculating a Draft EIS for additional public review and comment before drafting the Final EIS. According to the BLM NEPA Handbook, there is no supplementation process for an EA because if supplementation conditions exist for the Project, then the procedure is to prepare a new EA. (BLM NEPA Handbook at § 5.3.) The triggers for Supplementation are akin to CEQA's recirculation triggers and include:

- 1) *Making substantial changes to the proposed action that are relevant to environmental concerns. (40 CFR 1509.2(c)(1)(i).)* As BLM further explains "'Substantial changes' in the proposed action may include changes in the design, location, or timing of a proposed action that relevant to environmental concerns (i.e., the changes would result in significant effects outside the range of effects analyzed in the draft or final EIS)" (BLM NEPA Handbook at § 5.3.1; emphasis added.)
- 2) *Adding a new alternative that is outside the spectrum of alternatives already analyzed and not merely a variation on an alternative already analyzed.* (BLM NEPA Handbook at § 5.3.)
- 3) *There are significant new circumstances or new information relevant to environmental concerns and bearing on the proposed action or its effects (40 CFR 1502.9(c)(1)(ii).)* As BLM explains, "New circumstances or information are 'significant' and trigger the need for supplementation if they are relevant to environmental concerns and bearing on the proposed action and its effects (i.e., if the new circumstances or information would result in significant effects that are outside the range of effects already analyzed) (BLM NEPA Handbook at § 5.3.1; emphasis added.)

Changes To The Draft EIR/EA and Analysis Supporting No Recirculation/No Supplementation Decision

CEQA Guidelines §15088.5(d) provides that a decision not to recirculate an EIR must be supported by substantial evidence in the record. While the substantial evidence in the project documents is self-evident, the County chooses to identify some of the specific substantial evidence supporting its decision that the clarifications identified below do not trigger a recirculation.

Air Quality

Mitigation Measure (AQ1) for Air Quality has been revised to provide additional details/clarification on mitigating air quality impacts during construction. The additional details/clarifications would not result in a substantial increase in the severity of an environmental impact once mitigation measures have been implemented that reduce the impact to below a level of significance. Furthermore, the revised mitigation measure does not result in significant effects outside the range of effects analyzed in the draft or final

EIR/EA. No feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project.

Agricultural Resources

Concern was expressed in Section 2.1.3.12 of the DEIR that there were unsettled diverse opinions regarding the agricultural impacts of solar projects generally. Subsequently, the County has adopted a policy to address agricultural impacts from renewable energy projects pending in the County's regulatory review process on a case-by-case basis.

In addition, the Department of Conservation (DOC) in comment letters and subsequent discussions with the County, informed the County that the County may conclude that agricultural impacts from solar projects with an agricultural restoration plan are temporary impacts, instead of permanent impacts because, among other things, there is no permanent loss of valuable agricultural soils, and, backing the restoration plan with financial security ensures its implementation. In addition, DOC informed the County that it is appropriate to be more flexible in determining whether to require agricultural conservation easements (and in-lieu mitigation fees to acquire agricultural conservation easements) when there is an agricultural restoration plan backed by financial security.

Consistent with this County policy, comment letters, and discussions with DOC, the County determined that the Project's agricultural impact was temporary and that the agricultural impact analysis should therefore be consistent with the Project's agricultural restoration plan discussion in the Project Description at Section 2.1.3.12, which identified the plan as a project design feature. Therefore, the Agricultural impact section came to the same conclusion that any potential agricultural impacts were reduced to below a level of significance by requiring that the Project's private ground lease requiring restoration of the agricultural soils at the completion of the Project's term should be included as a MMRP and/or CUP condition with the additional requirement that the permittee post financial security to assure implementation of the plan. This clarification does not qualify as new "significant" information under any of the four State CEQA Guidelines §15088.5(a) criteria. In order to be "significant," the new information must constitute one of the following:

- (1) *A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.*

Here, the clarification regarding the temporary impact to agriculture is not a new significant environmental impact. Rather, it has been determined that the impact is of less significance than the permanent impact to agriculture described in the DEIR/EA. In addition, there are no new environmental impacts from the implementation of the agricultural restoration plan because the agricultural restoration plan was already proposed as a project feature in the DEIR/EA. It merely serves to clarify the mitigation that was already explicitly or implicitly implemented in the Draft EIR. Simply adding or clarifying a new mitigation measures does not trigger recirculation. The mitigation measure must create a new significant adverse environmental impact that the public was deprived a meaningful opportunity to comment on.

- (2) *A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.*

Again, the clarification regarding the temporary impact to agriculture is not an increase in the severity of an environmental impact. Rather, it is clarification of a decrease in the severity of the agricultural impact described in the DEIR/EA from permanent to temporary. Furthermore, clarifying that the agricultural restoration plan requirement in the Project's privately enforceable lease would also be a publicly enforceable MMRP condition backed by financial security serves to reduce any potential temporary impact to a level of insignificance.

- (3) *A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponent decline to adopt it.*

Clarifying that the agricultural restoration plan from the private ground lease term would also be a publicly-enforceable MMRP condition with a financial security condition makes the plan more enforceable, but is not considerably different since the restoration plan has always been a feature of the Project. Furthermore, the project proponent has not declined to adopt the MMRP condition.

- (4) *The draft EIR/EA was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.*

The Draft EIR/EA includes a comprehensive discussion of the Project's agricultural impacts, but clarification was needed to fully account for how the agricultural restoration plan would prevent a permanent loss of valuable agricultural soils. In addition, meaningful public review and comment were not precluded. Section 2.1.3.12 identified the Project's agricultural restoration plan, identified the Department of Conservation's comments suggesting how agricultural restoration plans could affect the impact analysis of a solar project's and provide flexibility in whether or not other forms of agricultural mitigation were even necessary. Section 2.1.3.12 also identified that the County's net agricultural production would not be impacted because the Project's indirect impact would be to displace the need for the Imperial Irrigation District to fallow as many other farmland acres to meet its water conservation needs. Another public comment letter expressed skepticism that the agricultural restoration plan could restore the soils. As DOC has opined that agricultural restoration plans are feasible mitigation and the County has conditioned the applicant to provide financial security to implement the agricultural restoration plan, these comments have been addressed. In short, CEQA's review and comment process worked to further clarify the agricultural impacts and improve the agricultural mitigation measure, not reveal a new adverse environmental impact from a project change or feasible mitigation measure that the project proponent declined to adopt.

None of the triggers of State CEQA Guidelines Section 15088.5(a) have been implicated. The discussion of the agricultural impacts in the Final EIR/EA provides greater clarity and detail to the analysis that was

included in the Draft EIR/EA. Furthermore, as discussed below none of the three triggers for Supplementation in the BLM NEPA Handbook are implicated.

- 1) *Making substantial changes to the proposed action that are relevant to environmental concerns. (40 CFR 1509.2(c)(1)(i).)* The clarifications to the Agricultural impact analysis are not substantial because they do not result in significant effects outside the range of effects analyzed in the Draft EIR/EA. First, it is within the range of environmental effects analyzed in the Section 2.1.3.12 of the Project Description's discussion of the Project's agricultural restoration plan. Second, there is no increase in environmental effects from making it more explicit in the MMRP condition what was implicit in the Project Description – that an agricultural restoration plan would restore the site's agricultural soils resulting in a temporary impact that was further mitigated by adding a financial security requirement.
- 2) *Adding a new alternative that is outside the spectrum of alternatives already analyzed and not merely a variation on an alternative already analyzed. (BLM NEPA Handbook at § 5.3.)* The EIR/EA does not add a new project alternative that is outside the spectrum of alternatives already analyzed.
- 3) *There are significant new circumstances or new information relevant to environmental concerns and bearing on the proposed action or its effects (40 CFR 1502.9(c)(1)(ii).)* The clarifications to the Agricultural impact analysis are not "significant" because they do not result in significant effects outside the range of effects analyzed in the Draft EIR/EA. First, it is within the range of environmental effects analyzed in the Section 2.1.3.12 of the Project Description's discussion of the Project's agricultural restoration plan. Second, there is no increase in environmental effects from making it more explicit in the MMRP condition what was implicit in the Project Description – that an agricultural restoration plan would restore the site's agricultural soils resulting in a temporary impact that was further mitigated by adding a financial security requirement.

Biological Resources

Mitigation Measure (B2) for Biological Resources has been added to specifically address Noxious, Invasive and Non-Native Weeds. A weed management plan will be developed and implemented to minimize the introduction and spread of weed species. Also, Mitigation Measure (B8) for Biological Resources has been added to specifically address the recent Mountain Plover surveys conducted on the project site; the contents of this mitigation measure are similar to other mitigation measures that were identified in the Draft EIR/EA. With the addition of these mitigation measures, the numbering for the mitigation measures have been adjusted. The project would not result in a substantial increase in the severity of an environmental impact once mitigation measures have been implemented that reduce the impact to below a level of significance. No feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project.

Public Review

Both the BLM and the County, as the NEPA and CEQA Lead Agencies, respectively, have taken and will take several steps to ensure that all interested parties have an opportunity to comment on the agricultural restoration plan specifically and any changes to the DEIR/EA generally.

First, the agricultural restoration plan was described as a project design feature in the Draft EIR/EA. In accordance with Article 7, EIR Process, of the State CEQA Guidelines (Section 15087 et. seq.), the Draft EIR/EA was submitted to the Governor's Office of Planning and Research, State Clearinghouse, and circulated for a 45-day public review period from December 6, 2010 to January 19, 2011. The Draft EIR/EA and its Appendices were available for public review online at <http://www.blm.gov/ca/st/en/fo/elcentro.htm> and at the following locations during the public review period:

County of Imperial Planning and Development Services Department 801 Main Street El Centro, CA 92243	City of El Centro Public Library 539 State Street El Centro, CA 92243	IVC Library 380 E. Aten Road Imperial, CA 92251
Palo Verde Valley District Library 125 West Chanslor Way Blythe, CA 92225	Meyer Memorial Library-Holtville Branch 101 East Sixth Street Holtville, CA 92250	Imperial Public Library 200 W 9 th Street Imperial, CA 92251
Imperial County Free Library 1125 Main Street El Centro, CA 92243		

The Notice of Availability (NOA) of the Draft EIR/EA was also posted at the above locations. The NOA was mailed to various agencies and organizations and to individuals that had previously requested such a notice. Additionally, the NOA was published in the Imperial Valley Press on December 3, 2010.

Second, the comment letters received included comments relating to the agricultural restoration plan.

Third, the FEIR/EA contains the revised text, which more explicitly clarifies that the agricultural restoration plan is a requirement of the project and establishes consistency with the analysis of the agricultural restoration plan provided in the DEIR/EA Section 2.1.3.12. The Final EA will be posted by the BLM for a 30-day review. The FEIR/EA will be available for public review prior to public hearings on the project to give the public a complete opportunity to prepare further comments at future public hearings.

Fourth, the public will have further opportunity to comment at the Imperial County Planning Commission hearing on the Project, which will be publicly noticed in accordance with applicable laws.

Fifth, the public will have another opportunity to comment at the Imperial County Board of Supervisor's hearing on the Project, which will be publicly noticed in accordance with applicable laws.

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EXECUTIVE SUMMARY

ES.1 Background and Project Overview

The BLM is the Federal lead agency under the National Environmental Policy Act NEPA for this Proposed Action. The BLM's role in this project is to respond to an application from CSOLAR Development, LLC under Title V of the Federal Land Policy and Management Act (FLPMA; 43 United States Code [USC] 1701) for a right-of-way grant (ROW) to operate, maintain, and decommission an electrical transmission line and associated access on public lands. The BLM will decide whether to approve, approve with modification, or deny issuance of a ROW to CSOLAR for the Imperial Solar Energy Center South project. The Proposed Action consists of three primary components: 1) the construction and operation of a 200 Megawatt Imperial Solar Energy Center South solar energy facility; 2) the construction and operation of electrical transmission lines that would connect the solar power facility to the existing Imperial Valley Substation; and, 3) the improvement and use of an existing dirt access road, a portion of which traverses BLM lands. The Proposed Action would utilize solar technology to convert sunlight directly into electricity. As part of the project, the facility would interconnect to the utility grid at the 230 kV side of the Imperial Valley Substation via a 230 kV electrical transmission line and associated access. The proposed ROW for the electrical transmission line corridor would be 120 feet wide. The proposed secondary solar field access road consists of an existing dirt access road that would be widened by five feet. The area proposed to be widened includes desert land and farmland. The proposed access road traverses both BLM lands and private land, and is located on the west side of the Westside Main Canal. The site of the proposed solar energy facility is located in Imperial County, Southern California on 946.6 gross acres of privately-owned, undeveloped and agricultural lands, in the unincorporated Mt. Signal area of the County. This is approximately eight miles west of the City of Calexico. The proposed transmission lines and a portion of the access road would be located within the Yuha Desert, and within BLM's Utility Corridor "N" of the California Desert Conservation Area plan (the CDCA Desert Plan).

ES.2 Purpose and Need

Bureau of Land Management

In accordance with FLPMA (Section 103(c)), public lands are to be managed for multiple uses in a manner that takes into account the long-term needs of future generations for renewable and non-renewable resources. The Secretary of the Interior is authorized to grant rights-of-way on public lands for systems of generation, transmission, and distribution of electric energy (Section 501(a)(4)). Taking into account the BLM's multiple use mandate, the purpose and need for the proposed action is to respond to a FLPMA ROW application submitted by CSOLAR to construct, operate, maintain, and decommission the proposed electrical transmission lines from the Imperial Solar Energy Center South facility to the Imperial Valley Substation and associated infrastructure on public lands administered by the BLM in compliance with FLPMA, BLM right-of-way regulations, and other applicable federal laws and policies. This proposed action would, if approved, assist the BLM in addressing the management objectives in the three authorities listed below.

In conjunction with FLPMA, BLM authorities include:

1. Executive order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the “production and transmission of energy in a safe and environmentally sound manner.”
2. The Energy Policy Act 2005 (EPAAct), which sets forth the “sense of Congress” that the Secretary of the Interior should seek to have approved non-hydropower renewable energy projects on the public lands with a generation capacity of at least 10,000 MW by 2015.
3. Secretarial Order 3285A1, dated March 11, 2009 and amended on Feb 22, 2010, which “establishes the development of renewable energy” as a priority for the Department of the Interior.

Imperial County

The purpose of the Proposed Action, also called “Project Objectives” under CEQA, is to utilize Imperial County’s abundance of available solar energy (sunlight) to generate renewable energy, consistent with the County General Plan renewable energy objectives. The following statements represent objectives of Imperial County and the project proponent. These objectives also provide a basis for identification of alternatives evaluated in the EIR/EA.

- Construct and operate a solar energy facility capable of producing 200 megawatts of electricity which would help meet the increasing demand for clean, renewable electrical power.
- Construct and operate a solar power facility in compliance with CEQA and County’s CEQA Guidelines, as well as any other applicable local, state, and federal standards.
- Operate a facility at a location that ranks amongst the highest in solar resource potential in the nation.
- Align transmission lines with existing lines contained within an existing utility corridor to minimize impacts to BLM land.
- Provides economic investment for Imperial County.
- Reinforce Imperial County’s position as a leader in the renewable energy world, and meet the County’s General Plan Conservation and Open Space Element Goal 6, to achieve maximum development of renewable alternative sources of energy, and objective 6.2, encourage the utilization of passive and renewable energy sources.
- Operate a renewable energy facility that does not produce significant noise, emit any greenhouse gases, and minimizes water use.
- Meet the increasing demand for clean, renewable electrical power.
- Help reduce reliance on foreign sources of fuel, promotes national security, diversifies energy portfolios, contributes to the reduction of greenhouse gas emissions and generates “green” jobs.
- The Project will contribute much needed on-peak power to the electrical grid in California.

- Help California meet its statutory and regulatory goal of increasing renewable power generation.
- Assist California in meeting its Renewable Portfolio Standard goals of 33 percent of electrical power retail sales by 2020 under pending legislation.
- Support U.S. Secretary of the Interior Salazar's Orders 3283 and 3285 making the production, development and delivery of renewable energy top priorities for the United States.
- Support the greenhouse gas reduction goals of Assembly Bill 832 (California Global Warming Solutions Act of 2006).
- Sustain and stimulate the economy of Southern California by helping to ensure an adequate supply of renewable electrical energy while simultaneously creating additional construction and operations employment and increased expenditures in many local businesses.
- Locate the solar energy generating facility on a site with the proximity and the ability to interconnect to the California Independent System Operator (CAISO) controlled transmission network.
- Locate the solar energy generating facility on a site with the ability to utilize a previously designated utility transmission corridor.

Imperial County is the lead agency for the Proposed Action pursuant to the CEQA. The proposed project site would be located on approximately 946.6 acres of land in Imperial County, on six legal parcels zoned Heavy Agriculture (A-3) and General Agricultural Rural Zone (A-2-R). Pursuant to the County Land Use Ordinance, Title 9, Division 5, Chapter 9, "Solar Energy Plants" is a permitted use in the A-3 and A-2-R Zones, subject to issuance of a conditional use permit by the County of Imperial. ("Transmission lines, including supporting towers, poles, microwave towers, utility substations" are permitted uses within the A-3 Zone.") Accordingly, the Proposed Action would require Imperial County to approve CSOLAR's Conditional Use Permit application so as to allow the construction and operation of the proposed solar project.

Additionally, the Proposed Action would require approval of a variance by Imperial County that would allow the proposed transmission towers to exceed the 120-foot height limit. The proposed transmission towers would be a maximum of 140 feet in height. No land use changes would be required in order to implement the Proposed Action.

ES.3 Decisions to be Made

Bureau of Land Management

The BLM will decide whether to deny the proposed right-of-way, grant the right-of way, or grant the right-of-way with modifications. Modifications may include modifying the proposed use or changing the route or location of the proposed facilities (43 CFR 2805.10 (a)(1)).

Imperial County

The Proposed Action would require Imperial County to approve CSOLAR's Conditional Use Permit application so as to allow the construction and operation of the proposed solar project.

Additionally, the Proposed Action would require approval of a variance by Imperial County that would allow the proposed transmission towers to exceed the 120-foot height limit on the private land portions of the project. The proposed transmission towers would be a maximum of 140 feet in height. No land use changes would be required in order to implement the Proposed Action.

Imperial County will decide whether to deny the project proponents' Conditional Use Permit application, grant the application, or grant it with modifications. Imperial County will also decide whether to grant or deny the project proponents' request for a variance, or grant it with modifications.

ES.3(A) Comparison of Alternatives

The following alternatives are included and analyzed in Section 4.0 Environmental Consequences of this EIR/EA. The proposed use of the existing access road along the Westside Main Canal through BLM lands would be the same for each alternative.

Proposed Action

The Proposed Action for the transmission line corridor is described in detail in Section 2.1.4. The alignment of this alternative is shown on Figure 2-22. The Proposed Action would align with existing transmission lines through BLM lands within Utility Corridor "N" of the California Desert Conservation Area plan. It is considered the Proposed Action because it minimizes impacts to BLM lands and cultural resources while also meeting the BLM Purpose and Need and the CEQA project objectives. The proposed project area is mostly accessible via existing roads; however, in some places relatively short (100–300 foot) spur roads are required. The Proposed Action alignment would keep the transmission lines away from the US-Mexico border and the activities of the U.S. Border Patrol. Also, this alternative would have the least impact on U.S. Army Corps of Engineers jurisdictional waters (non-wetland waters of the U.S.)

Alternative 1-Alternative Transmission Line Corridor

Alternative 1-Alternative Transmission Line Corridor for the transmission line is a variant of the Proposed Action toward the southern end of the corridor. The alignment of this alternative is shown on Figure 2-23. Under Alternative 1-Alternative Transmission Line Corridor, the proposed transmission line corridor, as it exits the solar energy facility, would be located closer to the US-Mexico border. This alternative has the potential to impact U.S. Army Corps of Engineers jurisdictional waters.

Alternative 2-Reduced Solar Energy Facility Site

Alternative 2-Reduced Solar Energy Facility Site is a reduced solar energy facility site. Under this alternative, the solar energy facility site size would be approximately 476 acres resulting in an approximately 50% reduction in electrical generation output. The transmission line corridor would be the same as is assumed for the Proposed Action. Figure 24 depicts the Alternative 2-Reduced Solar Energy Facility Site.

Alternative 3-No Action/No Project Alternative

The Alternative 3-No Action/No Project Alternative assumes that the solar energy facility, associated transmission lines, and use of the access road would not be constructed.

Alternative 4-Distributed Generation Alternative

Distributed generation refers to the installation of small-scale solar energy facilities at individual locations at or near the point of consumption (e.g. use of solar PV panels on a business or home to generate electricity for on-site consumption). Distributed generation systems typically generate less than 10 kW. Other terms for distributed generation include on-site generation, dispersed generation, distributed energy, and others.

Current research indicates that development of both distributed generation and utility-scale solar power will be needed to meet future energy needs in the United States, along with other energy resources and energy efficiency technologies (NREL). For a variety of reasons (e.g. upper limits on integrating distributed generation into the electric grid, costs, lack of electricity storage in most systems, and continued dependency of buildings on grid-supplied power), distributed solar energy alone cannot meet the goals for renewable energy development. Ultimately, both utility-scale and distributed generation solar power will need to be deployed at increasing levels, and the highest penetration of solar power overall will require a combination of both types (NREL, 2010).

Alternatives incorporating distributed generation with utility-scale generation, or looking exclusively at distributed generation, do not respond to the BLM's purpose and need for agency action in the Imperial Energy Center South EIR/EA. The applicable federal orders and mandates providing the drivers for specific actions being evaluated in the EIR/EA compel the BLM to evaluate utility-scale solar energy development. The Energy Policy Act of 2005 (Public Law [P.L.] 109-58) requires the Secretary of the Interior to seek to approve non-hydropower renewable energy projects on public lands, with a generation capacity of at least 10,000 MW of electricity by 2015; this level of renewable energy generation cannot be achieved on that timetable through distributed generation systems. In addition, Order 3285A1 issued by the Secretary of the Interior requires the BLM and other Interior agencies to undertake multiple actions to facilitate large-scale solar energy production (Secretary of the Interior 2010). Accordingly, the BLM's purpose and need for agency action in this EIR/EA is focused on the siting and management of utility-scale solar energy development on public lands. Furthermore, the agency has no authority or influence over the installation of distributed generation systems, other than on its own facilities, which the agency is evaluating at individual sites through other initiatives. Therefore, this alternative is not under consideration with respect to the proposed project.

ES.3(B) Agency Preferred Alternatives

The County of Imperial's and BLM's preferred alternative is the Proposed Action.

ES.4 Connected and Cumulative Actions

Connected actions are those actions that are closely related and should be discussed in the same document. (40 CFR 1508.25 (a)(1)). Actions are connected if they automatically trigger other actions that may require an EIS, cannot or will not proceed unless other actions are taken before or at the same time, or

if the actions are interdependent parts of a larger action and depend upon the larger action for their justification. (40 CFR 1508.25(a)(i, ii, iii)).

Cumulative actions are proposed actions which potentially have a cumulatively significant impact together with other proposed actions and should be discussed in the same document. (40 CFR 1508.25(a)(2)).

ES.4(A) Connected Actions

No connected actions have been identified for the Proposed Action.

ES.4(B) Cumulative Actions

No cumulative actions have been identified for the Proposed Action.

ES.5 Environmental Consequences

The County of Imperial has determined that an EIR is required pursuant to CEQA and the BLM has determined to follow the process of reviewing the project as required under the NEPA and will assess the project via an EA. In accordance with the CEQ NEPA Regulations, specifically 40 C.F.R. section 1501.4(c), an EA is used to evaluate impacts of the Proposed Action, and based on whether the impacts are adverse or not, determine whether the Proposed Action qualifies for a Finding of No Significant Impact or whether an Environmental Impact Statement must be prepared. The environmental issue areas or topics identified by the County and BLM as a result of input received on the Notice of Preparation (NOP) and scoping meeting for the project include the following: visual resources; land use; transportation/circulation; air quality; greenhouse gas emissions; geology/soils and mineral resources; cultural resources; noise; agricultural resources; health, safety and hazardous materials/fire and fuels management; hydrology and water quality; biological resources; public services and utilities; paleontological resources; socioeconomics and environmental justice; recreation; special designations; and, cumulative impacts. These topics were analyzed in the Draft EIR/EA; comments on the Draft EIR/EA did not result in any new environmental issue areas that needed to be addressed.

This EIR/EA is a joint federal/state document prepared to comply with the requirements of both NEPA and CEQA. The CEQ NEPA regulations state that agencies must “[I]dentify environmental effects and values in adequate detail” (40 C.F.R. section 1501.2(b)). CEQA requires an EIR to identify significant environmental effects of the project. The Environmental Consequences subsections of this EIR/EA each contain NEPA indicators and CEQA criteria, which are used in this EIR/EA to: (1) provide a background for the NEPA analysis and help the reader to put the impacts to each resource in context, and (2) determine the significance under CEQA of each identified adverse effect. Table ES-1 presents a summary of the environmental impacts of the Proposed Action, mitigation measures that are proposed to reduce potential adverse or significant impacts of the Proposed Action, and the level of adversity or significance of each impact after implementation of proposed mitigation measures.

In accordance with CEQA Guidelines § 15004(b)(3) and the CEQ NEPA regulations, 40 C.F.R. § 1508.20, the applicant has incorporated design features, measures, and procedures into the description of its proposed project to avoid or reduce impacts from project construction and operation. These measures are referred to as Applicant Proposed Measures (APMs) in this document and are considered in the analysis of potential impacts and in the determination of significance.

New CEQ Guidelines confirm the use of a “mitigated Finding of No Significant Impact” (FONSI) that is based on an agency’s commitment to ensure that the mitigation measures underpinning the FONSI are performed. (CEQ, “Appropriate Use of Mitigation and Monitoring[.]”, January 12, 2011, p. 2). An EIS need not be prepared when an agency has committed to ensuring that the mitigation that supports the FONSI will be performed. (Id.). Agencies may commit to mitigation measures when they have the appropriate level of oversight authority over the contemplated mitigation measures (or external legal authority exists to ensure performance of the mitigation), and an expectation that resources sufficient to ensure that the mitigation is performed will be available. (Id., at p. 3). Accordingly, agencies should take steps to ensure that mitigation commitments are actually implemented. Consistent with the CEQ Guidance, mitigation commitments are well-documented in the EA, and a system for monitoring performance will be in place. Additionally, BLM will ensure that its decision is made conditional on the mitigation commitments. (Id., at p. 8). The BLM NEPA Handbook H-1790-1, section 8.3.6 states that “the mitigation measures that will be implemented are explicitly adopted in the decision record.” The mitigation commitments are specified in terms of measurable performance standards, or in terms of expected results, so that the performance expectations are clear. (Id.). This includes a timeframe, so that the start date for mitigation is clear. (Id., at p. 9).

ES.5(A) Mitigation, Monitoring And Reporting Program under CEQA

CEQA Section 21081.6(a) requires lead agencies to adopt a Mitigation, Monitoring, and Reporting Program (MMRP) to describe measures which have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment under CEQA. The specific “reporting or monitoring” program required by CEQA is not required to be included in the Draft EIR; however, it will be presented to the County Planning Commission and/or Board of Supervisors for adoption if the Proposed Action is approved. Throughout the EIR, mitigation measures have been clearly identified and presented in language that will facilitate establishment of an MMRP. The MMRP would ensure compliance with the mitigation measures adopted by the County Board of Supervisors.

ES.5(B) Analysis Assumptions Generally Used to Evaluate the Impacts of the Proposed Action

Affected Environment/Baseline Environmental Conditions Assumed in the Draft EIR/EA

The CEQ NEPA Regulations describe the requirement for an “affected environment” section in an environmental document as a description of “the environment of the areas(s) to be affected or created by the alternatives under consideration.” 40 C.F.R. section 1502.15. Neither NEPA nor the CEQ NEPA

Regulations contain a standard rule about the time frame for establishing baseline conditions (the conditions against which to measure the potential effects of implementing an Action). BLM Handbook Section 6.7.1. The BLM Handbook recommends that the EA “contain a brief description of the environment likely to be affected by the proposed action or alternatives, which should be limited “to that information relevant to understanding the effect(s) of the proposed action or alternative.” BLM Handbook Section 8.3.5. The BLM Handbook references the affected environment as “the present condition of the affected resources within the geographic scope.” BLM Handbook, Section 6.7.1.

Section 15125(a) of the CEQA Guidelines requires that an EIR include a description of the physical environmental conditions in the vicinity of the project as they exist at the time the Notice of Preparation is published. The CEQA Guidelines also specify that this description of the physical environmental conditions will normally serve as the baseline physical conditions by which a lead agency determines whether impacts of a project are considered significant.

The affected environment and environmental setting conditions of the project site and the surrounding area are described in detail in the technical sections of the Draft EIR/EA in Chapter 3. In general, these setting discussions describe the setting conditions of the project site and the surrounding area as they existed when the NOP for the project was released on June 11, 2010. In addition, the Draft EIR/EA also includes updated setting information since release of the NOP, such as the status of proposed and approved large-scale projects in the region.

General Plan Consistency Analysis

As required by CEQA Guidelines 15125(d), each technical section of the EIR (Chapter 4) has been evaluated for consistency with policies contained in the applicable Imperial County General Plan. “An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment.” *Corona-Norco Unified School Dist. v. City of Corona* (1993) 17 Cal.App.4th 985, 994 [emphasis added].

Project Buildout Assumptions

For most of the environmental impact sections of the EIR/EA, it is conservatively assumed that buildout of the site would be permanent. However, several of these impacts will be temporary (25-year lease). The land proposed for the solar energy facility is subject to a long-term lease agreement. Under the lease agreement, the applicant is required to restore the land to its current use at the end of the project term.

ES.5(C) NEPA and CEQA Impact Summary Table

Potentially Adverse Impacts under NEPA and Potentially Significant, Mitigable Impacts under CEQA

Implementation of the Proposed Action has the potential to result in direct, indirect or cumulative NEPA impacts and significant CEQA impacts as a result of the construction activities and operation of the project. Potentially adverse NEPA and significant CEQA impacts were identified in the original scoping process to the following environmental issue areas:

- Transportation/Circulation
- Air Quality
- Geology/Soils and Mineral Resources
- Cultural Resources
- Paleontological Resources
- Health, Safety and Hazardous Materials/Fire and Fuels Management
- Hydrology and Water Quality
- Biological Resources
- Agricultural Resources

Through the analysis in the EIR/EA, it was determined that implementation of proposed Mitigation Measures identified in this EIR/EA would reduce the impact to these to a level less than significant under CEQA. Significance of an impact under NEPA is typically not presented in the NEPA document. BLM's decision, and rationale for its selection, is recorded in the decision document, as well as a written conclusion to identify whether the decision's impacts are significant.

Significant, Unmitigable Impacts Under CEQA

With implementation of the mitigation measures, all the impacts are below the indicators (also called thresholds under CEQA). No significant, unmitigable impacts under CEQA have been identified associated with the construction and operation of the Proposed Action.

ES.5(D) Major CEQA Conclusions

Based on the analysis provided in the Final EIR/EA, implementation of the Proposed Action would result in impacts as result of the construction activities and operation of the project. Mitigation Measures have been identified to reduce these impacts to a level less than significant under CEQA. As such, No significant, unmitigable impacts under CEQA have been identified associated with the construction and operation of the Proposed Action.

ES.5(E) CEQA Areas of Controversy and Issues to be Resolved

The CEQA Guidelines Section 15123(b)(2) requires that areas of controversy known to the lead agency, including issues raised by agencies and the public, be identified in the EIR/EA's Summary. To determine the number, scope and environmental topics to be addressed in this EIR/EA, the Imperial County Planning and Development Services Department prepared a Notice of Preparation (NOP) and circulated the NOP on June 14, 2010 to interested public agencies, organizations, community groups and individuals in order to receive input on the Proposed Action. The NOP was circulated for the mandatory 30-day minimum public review period, which started on June 14, 2010 and ended on July 13, 2010. The NOP and the distribution list for the NOP are provided in Appendix A of this EIR/EA

In addition to the State Clearinghouse transmittal letter, six written comment letters were received in response to the NOP. Agencies and entities that submitted written comment letters included the California Department of Transportation, the United States Marine Corps, the Imperial County Air Pollution Control District, the California Department of Conservation, the Imperial Irrigation District (IID), and the Colorado River Board of California. Through the NOP process, the following areas of controversy were identified:

- Caltrans has requirements for Utility Encroachment, such as line supports for overhead lines crossing freeways.
- Concern regarding dust emissions and control during construction and operation of the project.
- Concern regarding potential impacts associated with the conversion of agricultural lands.
- Concern regarding possible use of herbicides for weed control at the solar generating facility
- Fiscal impacts to the County associated with the solar generating facility.
- Revisions to IID distribution circuits may be required to serve the Operations and Maintenance building proposed at the solar energy facility site.
- Concern that the following IID facilities may be impacted: the Westside Main Canal, Wormwood Canal, the canal crossing for Westside Main and Wormwood Canals, All American Canal, Drop No. 1. Walnut Canal, Woodbine Lateral 5 Canal, Mt. Signal Drain, Mt. Signal Drain No. 3, and Mt. Signal Drain No. 4.
- Also, a new bridge may be required to cross the Westside Main Canal in order to access the western portion of the site.
- An encroachment permit is required for any construction or operation on IID property or within existing or proposed right of way or easements.
- Concern regarding potential impacts to the Salton Sea and to IID drains, from potentially reduced agricultural runoff caused by the conversion of agricultural land to urban use.
- Project water requirements of IID.
- The potential need to evaluate whether the project will require new, relocated, or reconstructed IID facilities.

See Section ES.9 for discussion of the comments on the Draft EIR/EA.

ES.5(F) Issues to be Resolved

The major unresolved issue relates back to the decisions to be made, as described in Section ES.3 above. The major unresolved issue is the decision to select a build or No Action/No Project alternative, and if a build alternative is selected, to determine whether the ROW grant, Conditional Use Permit and Variance should be granted relative to the Proposed Action or one of the alternatives.

ES.6 Lead Agencies' Roles and Responsibilities

Bureau of Land Management

The solar energy facility is located approximately five miles south of the Imperial Valley Substation. The solar energy facility would interconnect to the utility grid at the 230 kV side of the Imperial Valley Substation. The Imperial Valley Substation is located within federal lands managed by the BLM. Also, use of an existing dirt road is proposed for construction and maintenance access to the western portion of the solar energy facility. A portion (1,258 feet) of the 1.1-mile long access road is located within BLM lands. Therefore, the

project requires Right-of-Way (ROW) approval from the BLM. The project plans a 120-foot-wide ROW from the project site, along BLM land to the Imperial Valley Substation in order to accommodate the transmission corridor. The transmission line right-of-way corridor, within BLM lands comprises approximately 83.7 acres. A temporary construction right-of-way area within BLM lands for the transmission line comprises approximately 0.6 acre.

In addition, a component of the Proposed Action is the improvement and use of an existing dirt access road that would be utilized during construction and operation of the solar energy facility, a portion of which is located within BLM lands. As such, construction of the proposed access road would include a 1,260-foot-long and 40-foot-wide ROW (1.2 acres) within BLM lands. The following table describes the ROW acreage being requested from the BLM for the construction of the proposed access road, as well as use of existing utility corridor access road and transmission line spur roads outside of the 120-foot Transmission Line Corridor.

Location	Proposed Access Road to the Solar Energy Site within BLM lands	Use of Existing Utility Corridor Access Road	Transmission Line Spur Roads Outside of 120' Transmission Line Corridor
Township 16 ½ South, Range 12 East,			
Section 3, E1/2	0	2.1	0.4
Township 17 South, Range 12 East			
Section 2, E ½	0	1.5	0.7
Section 11, NE ¼	0	0.8	0.3
Section 12 W ½	0	0.8	0.3
Section 13, W ½, SE ¼	0	1.8	0
Section 13, W ½, E ½	0	0	0.5
Section 24, NE ¼	0	0.6	0
Township 17 South, Range 13E, Section 17 NW ¼	1.2	0	0
Township 17 South, Range 13E, Section 19 NW ½	0	1.3	0
TOTAL	1.2	8.9	2.2

To obtain the ROW approval, CSOLAR submitted a "Standard Form-299 Application for Transportation and Utility Systems and Facilities on Federal Lands" to the BLM. The proposed ROW for the transmission line corridor and access road would be within Utility Corridor "N" of the BLM's California Desert Conservation Area Plan (the Desert Plan). The BLM is the lead agency on this EA pursuant to a Memorandum of Understanding (MOU) between Department of Energy (DOE) and BLM signed in January 2010, and would use this EA to comply with NEPA and assist the decision making regarding whether or not to approve the proposed ROW.

County of Imperial

The solar energy facility site is designated by the County of Imperial General Plan as “Agriculture” and is zoned Heavy Agriculture (A-3) and General Agricultural Rural Zone (A-2-R). The proposed solar energy facility site comprises approximately 946.6 acres of land. The Proposed Action would require approval of a Conditional Use Permit by the County of Imperial that would allow for the construction and operation of the proposed solar power plant on a project site consisting of six legal parcels zoned A-2-R and A-3. Pursuant to Imperial County Land Use Ordinance Title 9, Division 5, Chapter 9, “Solar Energy Plants” is a use that is permitted in the A-3 and A-2-R Zones, subject to issuance of a conditional use permit by the County of Imperial. (“Transmission lines, including supporting towers, poles, microwave towers, utility substations” are permitted uses within the A-3 Zone.) In addition, the Proposed Action would require approval of a variance by the County of Imperial that would allow the proposed transmission towers to exceed the 120-foot height limit on the private land portion of the project. This would affect only the portion of the Proposed Action proposed for the solar energy facility, which is located on private lands in the unincorporated portion of the County of Imperial. The proposed transmission towers would be a maximum of 140 feet in height. No land use changes would be required in order to implement the Proposed Action.

Department of Energy

Title XVII of the Energy Policy Act of 2005 (EPAAct), P.L. 109-58 as amended by section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the “Recovery Act”), established a Federal loan guarantee program for eligible energy projects. Title XVII authorizes the Secretary of Energy to make loan guarantees for various types of projects, including those that “avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued.” Section 406 of the Recovery Act added section 1705, which is designed to address the current economic conditions of the nation, in part, through eligible renewable and transmission projects to commence construction no later than September 30, 2011. The primary purposes of the Recovery Act are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and state and local fiscal stabilization. The purpose and need for the DOE action would be to comply with its mandate by selecting eligible projects that meet the goals of EPAAct and the Recovery Act.

Pursuant to provisions of section 1705, on October 7, 2009, DOE competitively solicited applications for “Commercial Technology Renewable Energy Generation Projects Under the Financial Institution Partnership Program.” In response to that solicitation CSOLAR Development LLC submitted an application to DOE on June 11, 2010, for a Federal loan guarantee for the Imperial Solar Energy Center (ISEC) South and West. DOE is carrying out a detailed financial, technical, and legal evaluation of the project submitted by the loan applicant, and is in the course of negotiating the terms and conditions of a possible Federal loan guarantee pursuant to its procedures set out at 10 CFR Part 609. DOE is a cooperating agency on this EA CONFIRM pursuant to a MOU between DOE and BLM signed in January 2010, and would use this EA to comply with NEPA and assist the decision making regarding whether or not to issue a loan guarantee. DOE would issue its own FONSI, if appropriate.

ES.7 Native American and Government-to-Government Consultation

With the filing of the Imperial Valley Solar Energy Center South application for a ROW, the BLM, as the lead federal agency, invited tribes into consultation pursuant to the Executive Memorandum of April 29th, 1994, as well as other relevant laws and regulations, including Section 106 of the NHPA. To date, fifteen Native American tribes have been identified and invited to consult on this project. The BLM invited the tribes into government-to-government consultation by letter on 6/24/2010. The BLM has received responses from the Fort Yuma Quechan Tribe and the Cocopah Indian Tribe indicating their interest in the project and their desire to continue consultation. The BLM, El Centro Field Office Archaeologist also received a phone call and discussed the project with Ms. Carmen Lucas of the Kwaaymii Laguna Band of Mission Indians. She requested additional information regarding the project and will continue to be consulted. The BLM is continuing to provide updates on the status of the environmental review process and the Section 106 process, invite the tribes into government-to-government consultation, and request their help in identifying any issues or concerns. The cultural resource inventory reports were sent to all tribes for their review and comment on November 1, 2010. The letter included with the reports also invited Tribes to a meeting and archaeological sites visit to be held in El Centro on November 16, 2010. The meeting presented information to the tribes regarding the proposed project and provided an opportunity for Tribes to ask questions and express their concerns regarding the proposed project. There have also been two additional letters and a meeting since November 16. A letter dated December 14, 2010 informed tribes of the release of the Draft EA/EIR, the comment period, and where they could comment. A letter dated January 31, 2011 informed the tribes that BLM is proposing to develop a MOA to resolve adverse effects to historic properties and invited the tribes to a consulting party meeting. The consulting party meeting was held in El Centro on February 23, 2011 and discussed the development of a MOA. Representatives from the Cocopah Indian Tribe, Manzanita Band of Kumeyaay Indians, and the Fort Yuma Quechan Tribe attended the meeting. The consultation process is still ongoing.

ES.8 Public Participation

The County of Imperial and the BLM conducted the following scoping process to identify the environmental issues for the proposed project. Comments received during this scoping process were considered by both the County and BLM in preparation of this EIR/EA. This scoping process meets the intent and requirements of CEQA (CEQA Guideline §15082) and NEPA (40 CFR 1501.7).

ES.8(A) Notice of Preparation

The County of Imperial issued a Notice of Preparation (NOP) for the preparation of an Environmental Impact Report/Environmental Assessment for the Proposed Action on June 11, 2010. The NOP was distributed to city, county, and state and federal agencies, other public agencies, and various interested private organizations and individuals in order to define the scope of the EIR/EA. The NOP was also published in the Holtville Tribune on June 11, 2010. The purpose of the NOP was to identify public agency and public concerns regarding the potential impacts of the Proposed Action, and the scope and content of environmental issues to be addressed in the EIR/EA. Comment letters in response to the NOP were

received from the Department of Conservation, Department of Transportation, Imperial County Air Pollution Control District, United States Marine Corps of Yuma, Arizona, Imperial Irrigation District, and Colorado River Board of California. Circulation of the NOP ended on July 16, 2010. Written comments received during the public review period for the NOP are included in Appendix A of this Final EIR/EA.

Issues identified during the scoping process include:

- Caltrans requirements for Utility Encroachment, such as line supports for overhead lines crossing freeways..
- Concern regarding dust emissions and control during construction and operation of the project.
- Concerns raised regarding potential impacts associated with the conversion of agricultural lands.
- Concern regarding possible use of herbicides for weed control at the solar generating facility.
- Fiscal impacts to the County associated with the solar generating facility.
- Revisions to IID distribution circuits may be required to serve the Operations and Maintenance building proposed at the solar energy facility site.
- IID facilities potentially impacted include the Westside Main Canal, Wormwood Canal, and canal crossing for Westside Main and Wormwood Canals, All American Canal, Drop No. 1. Walnut Canal, Woodbine Lateral 5 Canal, Mt. Signal Drain, Mt. Signal Drain No. 3, and Mt. Signal Drain No. 4.
- A new bridge may be required to cross the Westside Main Canal in order to access the western portion of the solar site.
- An encroachment permit is required for any construction or operation on IID property or within existing or proposed right of way or easements.
- Impacts to the Salton Sea via the New River and to IID drains, due to loss or reduction of agricultural runoff caused by agricultural land conversion to urban use.
- Project water requirements of IID.
- New, relocated, or reconstructed IID facilities required for the project need to be evaluated.

ES.8(B) Scoping Meeting and Environmental Evaluation Committee

A public scoping meeting was held for the Proposed Action in order to solicit input on the scope and content of the EIR/EA. This meeting involved both representatives of the County of Imperial as the CEQA Lead Agency, and the Bureau of Land Management as the NEPA Lead Agency. At this meeting comments from the public were taken in both written and oral form. The meeting was recorded by the County of Imperial. This meeting occurred on June 24, 2010. Written comments received at the public scoping meeting are included with the NOP comments in Appendix A of this Final EIR/EA.

ES.8(C) Airport Land Use Commission Meeting

The Proposed Action was presented and discussed at the County's Airport Land Use Commission (ALUC) Meeting held on June 16, 2010. The Proposed Action requires the transmission towers to be constructed at 140 feet in height. However, this would exceed the County's 120-foot height limit for non-residential structures within the A-2-R and A-3 zones. The ALUC determined that the Proposed Action would be consistent with the Airport Land Use Compatibility Plan (ALUCP) and no height restrictions are required for the proposed transmission line towers.

ES.9 Comments and Responses

The Draft EIR for the Imperial Solar Energy Center South project was circulated for public review and comment for a period of 50 days, from December 3, 2010 to January 25, 2011. A total of twelve (12) agencies, organizations, and persons provided written comments on the Draft EIR during public review. A copy of each comment letter along with corresponding responses is included in a "side by side" format to facilitate review. The specific comments and the corresponding responses have each been given an alphanumeric reference. The Final EIR/EA includes revisions including clarifications and corrections. The Final EIR/EA includes revisions, including clarifications, corrections, and updated information based on these comments. These revisions to the original text are made in restatement (clean) format instead of in strikeout/underline format in order to enhance the quality of public and decision-maker review.

TABLE ES-1
CEQA Summary of Potential Environmental Effects, Mitigation Measures, and Significance

Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Visual Resources			
PA No significant short-term or long-term visual resources impact has been identified.	NE	No mitigation recommended.	NE
1 Same as PA.	NE	Same as PA.	NE
2 Same as PA.	NE	Same as PA.	NE
3 No new development is proposed under the No Action/No Project Alternative.	NE	No mitigation recommended.	NE
4.2 Land Use			
PA No significant physical land use impact has been identified.	NE	No mitigation recommended.	NE
1 Same as PA.	NE	Same as PA.	NE
2 Same as PA.	NE	Same as PA.	NE
3 No new development is proposed under the No Action/No Project Alternative.	NE	No mitigation recommended.	NE
4.3 Transportation/Circulation			
PA No direct impacts to intersections, roadway segments, and freeway segments were identified.	NE	No mitigation recommended.	NE
1 Same as PA.	NE	Same as PA.	NE
2 Same as PA.	NE	Same as PA.	NE
3 No new development is proposed under the No Action/No Project Alternative.	NE	No mitigation recommended.	NE
4.4 Air Quality			
PA Significant NO _x impacts are expected due to construction grading operations. NO _x emissions of 103.5 pounds per day would exceed ICAPCD's	S	AQ1 All off-road construction diesel engines not registered under CARB's Statewide Portable Equipment Registration	LTS

Proposed Action = PA	Alternative 1 – Alternative Transmission Line Corridor = 1	Alternative 2 – Reduced Solar Energy Facility Site = 2	Alternative 3 - No Action/No Project Alternative = 3	
Less Than Significant = LTS	Significant = S	Significant and Unavoidable = SU	No Effect = NE	Beneficial Effect = BE

Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
threshold of 55 pounds per day. This is considered a significant impact and would require mitigation using cleaner Tier 2+ equipment ¹ to reduce NO _x emissions to below a level of significance.		<p>Program, which have a rating of 50 horsepower (hp) or more, will meet, at a minimum, the Tier 2 California Emissions Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless such engine is not available for a particular item of equipment. If a Tier 2 engine is not available for any off-road engine larger than 50 hp, that engine will have tailpipe retrofit controls that reduce exhaust emissions of NO_x and PM to no more than Tier 2 emission levels. Tier 1 engines will be allowed on a case-by-case basis only when the Project owner has documented that no Tier 2 equipment or emissions equivalent retrofit equipment is available for a particular equipment type that must be used to complete the Project's construction. This will be documented with signed written correspondence by the appropriate construction contractor, along with documented correspondence with at least two construction equipment rental firms.</p> <p>A list of the construction equipment and the associated EPA Tier shall be submitted to the County Planning and Development Department prior to the issuance of a grading permit to verify implementation of measure.</p> <p>AQ2 Pursuant to Imperial County's APCD, all construction sites, regardless of size, must comply with the requirements contained within Regulation VIII-Fugitive</p>	

¹ For the purposes of mitigation, any construction equipment unable to comply with the applicable standards for a specific pollutant will be reanalyzed using the applicable Tier 2 equipment for engine sizes over 50 HP. These emission rates become mandatory for all equipment built starting 2001 or later (depending on engine size).

Proposed Action = PA	Alternative 1 – Alternative Transmission Line Corridor = 1	Alternative 2 – Reduced Solar Energy Facility Site = 2	Alternative 3 - No Action/No Project Alternative = 3	
Less Than Significant = LTS	Significant = S	Significant and Unavoidable = SU	No Effect = NE	Beneficial Effect = BE

Environmental Effects		Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			<p>Dust Control Measures. These mitigation measures listed below shall be implemented prior to and during construction. The County Department of Public Works will verify implementation and compliance with these measures.</p> <p><i>ICAPCD Standard Measures for Fugitive Dust (PM₁₀) Control</i></p> <ul style="list-style-type: none">• All disturbed areas, including Bulk Material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps or other suitable material such as vegetative ground cover.• All on site and off site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.• All unpaved traffic areas one (1) acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20% opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.• The transport of Bulk Materials shall be completely covered unless six inches of freeboard space from the top of the container is maintained with no spillage and loss of Bulk Material. In addition, the cargo compartment of all Haul Trucks is to be	

Proposed Action = PA	Alternative 1 – Alternative Transmission Line Corridor = 1	Alternative 2 – Reduced Solar Energy Facility Site = 2	Alternative 3 - No Action/No Project Alternative = 3	
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Environmental Effects		Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			<p>cleaned and/or washed at delivery site after removal of Bulk Material.</p> <ul style="list-style-type: none">• All Track-Out or Carry-Out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an Urban area.• Movement of Bulk Material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.• The construction of any new Unpaved Road is prohibited within any area with a population of 500 or more unless the road meets the definition of a Temporary Unpaved Road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20% opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering. <p><i>ICAPCD Standard Measures for Construction Combustion Equipment</i></p> <ul style="list-style-type: none">• Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.• Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.• Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.	

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		<ul style="list-style-type: none">• Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).• Construction equipment operating onsite should be equipped with two to four degree engine timing retard or precombustion chamber engines.• Construction equipment used for the project should utilize EPA Tier 2 or better engine technology.• Keep vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same. <p><i>ICAPCD "Discretionary" Measures for Fugitive Dust (PM₁₀) Control</i></p> <ul style="list-style-type: none">• Water exposed soil with adequate frequency for continued moist soil, including a minimum of three wettings per day during grading activities.• Replace ground cover in disturbed areas as quickly as possible.• Automatic sprinkler system installed on all soil piles.• Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.• Implement the trip reduction plan to achieve a 1.5 AVR for construction employees.• Implement a shuttle service to and from retail services and food establishments during lunch hours. <p><i>Enhanced Mitigation Measures for Construction Equipment</i></p> <ul style="list-style-type: none">• Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of		
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			construction activity during the peak hour of vehicular traffic on adjacent roadways. <ul style="list-style-type: none"> Implement activity management (e.g. rescheduling activities to reduce short-term impacts). 	
1	Same as PA.	S	Same as PA.	LTS
2	Same as PA.	S	Same as PA.	LTS
3	No significant impact would occur.	NE	No mitigation recommended.	NE
PA Although, no air quality operational impact is identified, the Proposed Action, pursuant to the ICAPCD's CEQA Handbook, Rule 310 (Operational Development Fee) would apply to the proposed Operation and Maintenance Building.		LTS	AQ3 Prior to the issuance of a building permit, the project applicant shall comply with the ICAPCD Rule 310. All project proponents shall consult with ICAPCD to select and implement off-site mitigation measures, pay an operational development fee, or a combination of both.	LTS
1	Sam as PA.	LTS	Same as PA.	LTS
2	Same as PA.	LTS	Same as PA.	LTS
3	No significant impact would occur.	NE	No mitigation is recommended.	NE
4.5 Greenhouse Gas Emissions				
PA Although no impact is identified for greenhouse gas emissions, the Proposed Action is required to be consistent with the GHG emissions reduction strategies of AB 32.		NE	GHG1 <i>Diesel Equipment (Compression Ignition) Offset Strategies (40% to 60% Reduction):</i> <ol style="list-style-type: none"> 1) Use electricity from power poles rather than temporary diesel power generators. 2) Construction equipment operating onsite should be equipped with two to four degree engine timing retard or precombustion chamber engines. 3) Construction equipment used for the project should utilize EPA Tier 2 or better engine technology (Requirement under Mitigation Measure AQ1 as described in Section 4.4 of this EIR/EA.) 	BE
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			GHG2 <i>Vehicular Trip (Spark Ignition) Offset Strategies (30% to 70% Reduction):</i> 4) Encourage commute alternatives by informing construction employees and customers about transportation options for reaching your location (i.e. post transit schedules/routes). 5) Help construction employees rideshare by posting commuter ride sign-up sheets, employee home zip code map, etc. 6) When possible, arrange for a single construction vendor who makes deliveries for several items. 7) Plan construction delivery routes to eliminate unnecessary trips. 8) Keep construction vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same.	
1	Same as PA.	NE	Same as PA.	BE
2	Same as PA.	NE	Same as PA.	BE
3	No significant impact would occur.	NE	No mitigation recommended.	NE
4.6 Geology/Soils and Mineral Resources				
PA	The Proposed Action site contains expansive soils and are prone to liquefaction and differential settlement.	S	GS1 Prior to approval of final engineering and grading plans for the Imperial Solar Energy Center South project site, the County shall verify that all recommendations contained in the <i>Geotechnical Investigation Report, Imperial Solar Energy Center South</i> , prepared by Landmark Consultants, Inc. (May 2010) has been incorporated into all final engineering and grading plans. This report identifies specific measures for mitigating geotechnical conditions on the project site, and	LTS
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			addresses site preparation, foundations and settlements, slabs-on-grade, concrete mixes and corrosivity, seismic design, and pavement design. The County's soil engineer and engineering geologist shall review grading plans prior to finalization, to verify plan compliance with the recommendations of the report. All development on the project site shall be in accordance with Title 24, California Code of Regulations.	
1	Same as PA.	S	Same as PA.	LTS
2	Same as PA.	S	Same as PA.	LTS
3	No significant impact would occur.	NE	No mitigation recommended.	NE
4.7 Cultural Resources				
PA	Implementation of the Proposed Action would result in a significant impact to cultural resources during the construction and operational repair periods of the project.	S	<p>CR1</p> <p>Implementation of Mitigation Measure CR1 would not result in a direct or indirect impact because it requires that a formal testing and evaluation program be conducted and prepared for those resources which would be directly impacted due to the construction of access roads, towers, pull sites, or solar fields. The evaluation program will be consistent with the <i>Secretary of Interior Standards for the Treatment of Historic Properties and the Secretary of Interior Standards and Guidelines for Archaeology and Historic Preservation</i>. If the resources are determined to be eligible for listing on the NRHP, CRHR, and/or local register, best management practices consistent with the <i>Secretary of Interior Standards for the Treatment of Historic Properties and the Secretary of Interior Standards and Guidelines for Archaeology and Historic Preservation</i> will be required.</p>	LTS
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			<p>a) Preservation in Place:</p> <p>(1) Avoidance of the resource through project redesign in a manner that is technically possible, operationally possible, does not cause a new significant environmental impact or increase the severity of a significant environmental impact, and does not cause the loss or more than 1 MW of production.</p> <p>(2) Covering the archaeological sites with a layer of chemically stable soil before constructing facilities on site so long as covering can be done in a manner that is technically possible, does not cause a new significant environmental impact or increase the severity of a significant environmental impact, and does not cause the loss or more than 1 MW of production.</p> <p>b) Minimizing impacts by limiting the degree of impacts or reducing the impact through best management practices identified in a data recovery, excavation and/or construction monitoring plan. The content of this plan must be consistent with the Secretary of Interior's Standards for the Treatment of Historic Properties and Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation and include a description of areas to be monitored during construction, a discovery plan that will address unanticipated cultural resources, and provisions for the education of construction workers.</p>	

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			<p>CR2 There are additional sites which may be impacted due to their proximity to construction areas (see Section 4.7.1 above). Because these sites are located near areas being impacted by project construction, temporary fencing around their perimeters will be required to ensure that project impacts remain within the proposed impact area and that cultural resources are avoided by project personnel. In addition, grading within the construction area shall be performed in a manner that incorporates sheet flow and water runoff diversion techniques to prevent surface water from damaging off-site cultural sites.</p> <p>CR3 Pursuant to CEQA Guidelines § 15064.5(f), in the event that unknown historic or unique archaeological resources are encountered during construction or operational repairs, archaeological monitors will be authorized to temporarily divert construction work within 100 feet of the area of discovery until the significance and the appropriate mitigation measures are determined by a Registered Professional Archaeologist familiar with the resources of the region. Applicant shall notify the County within 24 hours. Applicant shall provide contingency funding sufficient to allow for implementation of avoidance measures or appropriate mitigation.</p> <p>CR4 If human remains are discovered, work will be halted in that area, and the procedures set forth in the CEQA</p>	
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		Guidelines Sec. 15064.5 (d) and (e), California PRC Sec. 5097.98 and state HSC Sec. 7050.5 and the Native American Graves Protection and Repatriation Act (NAGPRA) shall be followed, as applicable.		
1 Same as PA.	S	Same as PA.	LTS	
2 Same as PA.	S	Same as PA.	LTS	
3 No significant impact would occur.	NE	No mitigation required.	NE	
4.8 Noise				
PA No significant impact would occur.	NE	No mitigation required.	NE	
1 Same as PA.	NE	Same as PA.	NE	
2 Same as PA.	NE	Same as PA.	NE	
3 No significant impact would occur.	NE	No mitigation required.	NE	
4.9 Agricultural Resources				
PA Implementation of the Proposed Action will result in the conversion of existing farmlands on the project site to other uses.		AR1 Prior to the issuance of a grading permit or building permit (whichever permit comes first) for the Proposed Action, the mitigation of impact to agricultural lands shall be accomplished via one of the following as determined by the Permittee: The "Imperial Solar Energy Center South" project will result in the permanent loss of 820.7 acres of agricultural lands (prime farmland and farmland of statewide importance) and the following mitigation measures shall apply: Option 1: The Permittee shall procure Agricultural Conservation Easements on a 2 to 1 basis for all 820.7 acres, of similar quality farmland, outside of the path of development. The Conservation Easement shall meet the State Department of Conservation's regulations and	LTS	
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			<p>shall be recorded prior to issuance of any grading or building permits.</p> <p>Option 2: The Permittee shall pay an "Agricultural In-Lieu Mitigation Fee" in the amount of 20% of the fair market value per acre for the 820.7 acres based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Planning and Development Services Department and will be used for such purposes as the acquisition, stewardship, preservation and enhancement of agricultural lands within Imperial County.</p> <p>Option 3: The Permittee shall submit to the County of Imperial a reclamation plan to return the property to its current agricultural condition prior to the issuance of any building permits. The reclamation plan shall include a reclamation cost estimate prepared by a licensed general contractor or civil engineer. The Applicant shall provide financial assurance in the amount equal to the reclamation cost estimate to return the land to its current agricultural condition prior to the issuance of any building permits.</p>	
1	Same as PA.	S	Same as PA.	LTS
2	Similar to PA.	S	AR1-Alt 2 Prior to the issuance of a grading permit or building permit (whichever permit comes first) for the Alternative	LTS
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			<p>2-Reduced Solar Energy Facility Site, the mitigation of impact to agricultural lands shall be accomplished via one of the following as determined by the Permittee:</p> <p>The “Imperial Solar Energy Center South” project will result in the permanent loss of 458.77 acres of agricultural lands (prime farmland and farmland of statewide importance) and the following mitigation measures shall apply:</p> <p>Option 1: The Permittee shall procure Agricultural Conservation Easements on a 2 to 1 basis for all 458.77 acres, of similar quality farmland, outside of the path of development. The Conservation Easement shall meet the State Department of Conservation’s regulations and shall be recorded prior to issuance of any grading or building permits.</p> <p>Option 2: The Permittee shall pay an “Agricultural In-Lieu Mitigation Fee” in the amount of 20% of the fair market value per acre for the 458.77 acres based on five comparable sales of land used for agricultural purposes as of the effective date of the permit, including program costs on a cost recovery/time and material basis. The Agricultural In-Lieu Mitigation Fee, will be placed in a trust account administered by the Planning and Development Services Department and will be used for such purposes as the acquisition, stewardship, preservation and enhancement of agricultural lands within Imperial County.</p>	
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Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Option 3: The Permittee shall submit to the County of Imperial a reclamation plan to return the property to its current agricultural condition prior to the issuance of any building permits. The reclamation plan shall include a reclamation cost estimate prepared by a licensed general contractor or civil engineer. The Applicant shall provide financial assurance in the amount equal to the reclamation cost estimate to return the land to its current agricultural condition prior to the issuance of any building permits.	
3 No new development is proposed under the No Action/No Project Alternative.	NE	No mitigation required.	NE
4.10 Health, Safety and Hazardous Materials/Fire and Fuels Management			
PA The presence of trash and debris onsite and the application of herbicides on the solar facility project site is considered a significant impact.	S	<p>HM1 Prior to the issuance of a grading permit or Notice to Proceed (NTP), all trash and debris within the project site (solar energy facility site, transmission line corridor and access road) shall be disposed of off-site, in accordance with current, local, state, and federal disposal regulations. Compliance with this measure shall be verified by the BLM and the Planning and Development Services Department before issuance of a NTP or grading permit.</p> <p>HM2 Prior to the application of herbicides on the solar facility for weed management, a weed control plan shall be developed and approved by the BLM and reviewed and commented on by the County of Imperial</p>	LTS

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			<p>Agricultural Commissioner. The weed control plan shall provide:</p> <ol style="list-style-type: none"> 1) monitoring, preventative and management strategies for weed control during construction activities at the project; 2) control and management of weeds in areas temporarily disturbed during construction where native seed will aid in site revegetation; and, 3) a long-term strategy for weed control and management during the operation of the project. 	
1	Same as PA.	S	Same as PA.	LTS
2	Same as PA.	S	Same as PA.	LTS
3	No significant impact would occur.	NE	No mitigation recommended.	NE
4.11 Hydrology and Water Quality				
PA Contamination associated with urban non-point source pollution (e.g., grease, oils, sediment, and heavy metals) could enter the on-site retention basins as a result of construction or post-construction-related activities, resulting in potentially significant water quality impacts.		S	<p>HWQ1</p> <p>Prior to the recordation of the first final map and/or issuance of the first grading permit, the developer shall submit and receive a NPDES permit from the RWQCB in accordance with a SWPPP approved by the County of Imperial. The SWPPP shall include source control and treatment control BMPs. Possible source control BMPs include, but are not limited to:</p> <ul style="list-style-type: none"> • trash storage; • integrated pest management; • efficient irrigation and landscape design; and, • property owner educational materials regarding source control management. 	LTS
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		<p>Treatment control BMPs will comprise of detention basins to remove trash and pollutants such as sediment, nutrients, metals, bacteria, oil and grease, and organics.</p> <p>BMP Maintenance Proper maintenance is required to insure optimum performance of the detention basins. Maintenance will be the responsibility of the owner throughout the life of the project. The owner will instruct any future owner of the maintenance responsibility. The operational and maintenance needs of the proposed detention basins and under-panel detention basins include:</p> <ul style="list-style-type: none">• Periodic sediment removal.• Monitoring of the basin to ensure it is completely and properly drained.• Outlet structure cleaning.• Vegetation management.• Removal of weeds, tree pruning, leaves, litter, and debris.• Vegetative stabilization of eroding banks. <p>Inspection Frequency The facility will be inspected and inspection visits will be completely documented:</p> <ul style="list-style-type: none">• Once during the rainy season and once between each rainy season at a minimum,	

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			<ul style="list-style-type: none"> After every large storm (after every storm monitored or those storms with more than 0.50 inch of precipitation). <p>Aesthetic and Functional Maintenance</p> <p>Functional maintenance is important for performance and safety reasons. Aesthetic maintenance is important for public acceptance of storm water facilities.</p> <p>Aesthetic Maintenance- The following activities will be included in the aesthetic maintenance program:</p> <ul style="list-style-type: none"> Weed Control: Weeds will be removed through mechanical means. <p>Functional Maintenance has two components:</p> <ul style="list-style-type: none"> Preventative maintenance. Corrective maintenance. <p>Preventative Maintenance</p> <p>Preventative maintenance will be done on a regular basis. Preventative maintenance activities to be instituted at the basin are:</p> <ul style="list-style-type: none"> Trash and Debris: During each inspection and maintenance visit to the site, debris and trash removal will be conducted to reduce the potential for inlet and outlet structures and other components from becoming clogged and inoperable during storm events. Sediment management: Alluvial deposits at the inlet structures may create zones of ponded water. Upon these occurrences these deposits will 	
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			<p>be graded within the basin in an effort to maintain the functionality of the BMP. Sediment grading will be accomplished by manually raking the deposits.</p> <ul style="list-style-type: none"> Sediment removal: Surface sediments will be removed when sediment accumulation is greater than 18-inches, or 10 percent of the basin volume, whichever is less. Vegetation removed with any surface sediment excavation activities will be replaced through reseeded. Mechanical Components: Regularly scheduled maintenance will be performed on valves, fence gates, locks, and access hatches in accordance with the manufacturers' recommendations. Mechanical components will be operated during each maintenance inspection to assure continued performance. Elimination of Mosquito Breeding Habitats: The most effective mosquito control program is one that eliminates potential breeding habitats. <p>Corrective Maintenance Corrective maintenance is required on an emergency or non-routine basis to correct problems and to restore the intended operation and safe function of a basin. Corrective maintenance activities include:</p> <ul style="list-style-type: none"> Removal of Debris and Sediment: Sediment, debris, and trash, which threaten the ability of a basin to store or convey water, will be removed immediately and properly disposed of. Structural Repairs: Repairs to any structural component of a basin will be made promptly 	
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			<p>(e.g., within 10 working days). Designers and contractors will conduct repairs where structural damage has occurred.</p> <ul style="list-style-type: none">• Embankment and Slope Repairs: Damage to the embankments and slopes will be repaired quickly (e.g., within 10 working days).• Erosion Repair: Where a reseeding program has been ineffective, or where other factors have created erosive conditions (i.e., pedestrian traffic, concentrated flow, etc.), corrective steps will be taken to prevent loss of soil and any subsequent danger to the performance of a basin. There are a number of corrective actions that can be taken. These include erosion control blankets, riprap, sodding, or reduced flow through the area. Design engineers will be consulted to address erosion problems if the solution is not evident.• Fence Repair: Timely repair of fences (e.g., within 10 working days) will be done to maintain the security of the site.• Elimination of Trees and Woody Vegetation: Woody vegetation will be removed from embankments.• Elimination of Animal Burrows: Animal burrows will be filled and steps taken to remove the animals if burrowing problems continue to occur (filling and compacting). If the problem persists, vector control specialists will be consulted regarding removal steps. This consulting is necessary as the threat of rabies in some areas may necessitate the animals being destroyed rather than relocated.• General Facility Maintenance: In addition to the	
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		<p>above elements of corrective maintenance, general corrective maintenance will address the overall facility and its associated components. If corrective maintenance is being done to one component, other components will be inspected to see if maintenance is needed.</p> <p>Maintenance Frequency Maintenance indicators, described above, will determine the schedule of maintenance activities to be implemented at the basin. These basins should not require a rigorous maintenance schedule, once the landscaping is established. The inspection frequency and regular preventative maintenance will indicate when corrective maintenance is necessary. The detention basins must be inspected at least once during the rainy season and at least once between each rainy season. These basins must be maintained so that they continue to function as designed. All inspections and maintenance activities will be documented for submittal to the County of Imperial and the Regional Water Quality Control Board if requested.</p>	
1 Same as PA.	S	Same as PA.	LTS
2 Same as PA.	S	Same as PA.	LTS
3 No significant impact would occur.	NE	No mitigation recommended.	NE

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4.12 Biological Resources			
PA Implementation of the Proposed Action would impact vegetation communities, sensitive species, and jurisdictional waters.	S	<p>B1 Vegetation Communities Mitigation for the permanent and temporary impacts to creosote bush-white burr sage scrub, desert saltbush scrub, arrow weed thicket, and desert wash shall be accomplished through required mitigation acres. Table 4.12-10 identifies the mitigation ratio/requirement and required mitigation for each vegetation community.</p> <p>B2 Noxious, Invasive and Non-Native Weeds To minimize the introduction and spread of weed species a Weed Management Plan will be developed and implemented. The weed management plan will include a discussion of specific weeds identified on site that will be targeted for eradication or control as well as a variety of measures that will be undertaken during construction and O&M activities to prevent the introduction and spread of new weed species as a result of the project.</p> <p>General measures to prevent the spread of weeds include:</p> <ul style="list-style-type: none"> Limiting disturbance areas during construction to the minimal required to perform work and limiting ingress and egress to defined routes Maintaining vehicle wash and inspection stations, and closely monitoring the types of materials brought onto the site to minimize the potential for weed introduction 	LTS

² A qualified Designated Biologist must have (1) a bachelor's degree with an emphasis in ecology, natural resource management, or related science; (2) three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or the Wildlife Society (3) previous experience with applying terms and conditions of a biological opinion; and, (4) the appropriate permit and/or training if conducting focused or protocol surveys for listed or proposed species.

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			<ul style="list-style-type: none"> • Use of certified weed free mulch, straw wattles, hay bales and seed mixes • Reestablishing native vegetation along the transmission line and within the southwestern corner of the solar field as quickly as practicable on disturbed sites is the most effective long-term strategy to avoid weed invasions • Monitoring and rapid implementation of control measures to ensure early detection and eradication for need weed invasions <p>Weed control methods that may be used include both physical and chemical control. Physical control methods include manual hand pulling of weeds, or the use of hand and power tools to uproot, girdle, or cut plants. Herbicide applications are a widely used, effective control method for removing infestations of invasive weed species. However, inadvertent application of herbicide to adjacent native plants must be avoided, which can often be challenging when weeds are interspersed with native cover. Before applying herbicide, contractors will be required to obtain any required permits from state and local authorities. Only a State of California and federally certified contractor will be permitted to perform herbicide applications. All herbicides will be applied in accordance with applicable laws, regulations, and permit stipulations. Only herbicides and adjuvants approved by the State of California and federal agency for use on public lands will be used within or adjacent to the project site.</p>	
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			<p>Invasive plants species on BLM lands would be prevented, controlled, and treated through an Integrated Pest Management approach per the <i>Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER 2007)</i>.</p> <p>A <i>Final Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (PEIS)</i> was released to the public on June 29, 2007. The Record of Decision (ROD) for the PEIS includes standard operating procedures (SOPs) for applying herbicides (summarized in Appendix B, Table B-2 pages B-9 to B-14 of the ROD) and mitigation measures (summarized in Table 2, pages 2-4 to 2-6 of the ROD) that were adopted to ensure that all practicable means to avoid or minimize environmental harm is implemented in these vegetation treatment projects. The Human Health Risk Assessment (PEIS, Appendix B) and Ecological Risk Assessment (PEIS, Appendix C) include an analysis of impacts to resources and human health. This EA tiers to the both the human health and ecological risk assessments, the resource analyses related to the SOPs, and resource analyses related to the mitigation measures in the PEIS.</p> <p>Only herbicides approved by BLM in California will be used on BLM lands. Herbicide application can only occur on BLM lands with an approved Pesticide Use Proposal (PUP).</p>	

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Environmental Effects		Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			<p>B3 Burrowing Owl</p> <p>Burrowing owls have been observed in the active agricultural fields within the proposed solar energy facility. The following measures will avoid, minimize, or mitigate potential impact to burrowing owl during construction activities:</p> <p>1) Initial grading of the agricultural fields project footprint should take place between September 1 and January 31 to avoid impacts to any breeding burrowing owls. If construction is to begin during the breeding season, the following measures will be implemented prior to February 1 to discourage the nesting of the burrowing owls within the area of impact. As construction continues, any area where owls are sighted would be subject to frequent surveys by the Designated Biologist or Biological Monitor for burrows before the breeding season begins, so that owls can be properly relocated before nesting occurs.</p> <p>2) Within 30-days prior to initiation of construction, pre-construction clearance surveys for this species shall be conducted by qualified and agency-approved biologists to determine the presence or absence of this species within the construction area. This is necessary, as burrowing owls may not use the same burrow every year; therefore, numbers and locations of burrowing owl burrows at the time of construction may differ from the data collected during previous focused surveys. The proposed construction areas shall be clearly demarcated in the field by the project engineers and Designated Biologist prior to</p>	
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			<p>the commencement of the pre-construction clearance survey. The surveys shall follow the protocols provided in the <i>Burrowing Owl Survey Protocol and Mitigation Guidelines</i>.</p> <p>3) If active burrows are present within the project footprint, the following mitigation measures shall be implemented. Passive relocation methods are to be used by the biological monitors to move the owls out of the impact zone. Passive relocation should only be done in the non-breeding season. This includes covering or excavating all burrows and installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow, but will exclude any animals from re-entering the burrow. A period of at least one week is required after the relocation effort to allow the birds to leave the impacted area before construction of the area can begin. The burrows should then be excavated and filled in to prevent their reuse. The destruction of the active burrows on-site requires construction of new burrows at a mitigation ratio of 2:1 at least 50 meters from the impacted area and must be constructed as part of the above-described relocation efforts. The construction of new burrows will take place on BLM land to the north or south of the solar field, and outside of the proposed transmission corridor; any relocated burrows onto BLM lands will be approved by the agencies to prevent conflicts in future land use.</p> <p>4) As the project construction schedule and details are finalized, an approved biologist shall prepare a BUOW Mitigation and Monitoring Plan that will detail</p>	
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Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>the approved, site-specific methodology proposed to minimize and mitigate impacts to this species. Passive relocation, destruction of burrows, and construction of artificial burrows can only be completed upon prior approval by and in cooperation with the CDFG.</p> <p>Compensation CDFG's mitigation guidelines for burrowing owl (1995), requires a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird to be acquired and protected to offset the loss of foraging and burrow habitat on the project site.</p> <p>Assuming project impacts to four active burrows, a minimum of 26 acres would be permanently protected to offset this loss. This mitigation would be implemented locally to provide at least 26 acres of the FTHL mitigation contains suitable habitat for burrowing owl and is approved by CDFG. If FTHL mitigation is in the form of an in lieu fee to be used within the Yuha MA, which also provides suitable habitat for BUOW, it is assumed that the BLM or ICC's use of the funds within the MA will also improve or increase habitat for BUOW and will therefore fulfill the BUOW mitigation requirement.</p> <p>B4 General O&M Mitigation Measures A number of general mitigation measures, designed to reduce potential direct and indirect impacts to resources in the project area will be implemented after construction as standard Operation and Maintenance protocols. In order to reduce the potential impact to</p>	

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			<p>biological resources during operations and maintenance, the following will be implemented:</p> <ul style="list-style-type: none"> A brief Annual Report will be submitted to the relevant resource agencies documenting the implementation of the following general measures as well as any resource-specific measures such as habitat restoration and/or compensation: <ul style="list-style-type: none"> Speed limits along all transmission access roads and within the solar energy facility will not exceed 15 miles per hour. Transmission access for O&M activities shall be kept to the minimum necessary for operations and be accomplished during the winter months when feasible. This limited access and annual timing is designed to prevent FTHL mortality. Annual formal Worker Education Training shall be established for all employees and any subcontractors at the ISEC South to provide instruction on sensitive species identification; measures to avoid contact, disturbance, and injury; and reporting procedures in the case of dead and/or injured wildlife species. The USFWS and the BLM shall be notified per approved guidelines and channels of authority if mortality should occur. A <i>Raven Control Plan</i> will be prepared and implemented that details specific measures for storage and disposal of all litter and trash produced by the solar energy facility and its employees. This plan is designed to discourage scavengers that may also prey on wildlife in the vicinity. All employees will be familiar with this 	
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			<p>plan and littering will not be tolerated. This plan will be approved by the BLM and CDFG.</p> <ul style="list-style-type: none"> – A <i>Weed Management Plan</i> will be prepared and implemented that describes specific on-going measures to remove weedy plant species from the solar energy facility and encourages native plant growth. This plan should be prepared in conformance with herbicide and native seed/planting guidelines outlined in the project's Habitat Restoration Plan, and will be approved by the BLM. – A <i>Wildlife Mortality Reporting Program</i> will be prepared and implemented to identify and report any dead or injured animals observed by personnel conducting O&M activities within the solar energy facility and along the transmission line. An appropriate reporting format for dead or injured wildlife observed within the solar energy facility and along the transmission line will be developed in coordination with the USFWS and the BLM. In addition, reporting of any dead or injured avian species found along the transmission line will follow the existing USFWS Bird Fatality/Injury Reporting Program (https://birdreport.fws.gov/). – An Avian and Bat Protection Plan (ABPP) will be prepared that will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations. These measures incorporate APLIC design guidelines for overhead utilities (2006) by incorporating recommended or other methods 	
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			<p>that enhance the visibility of the lines to avian species. The ABPP will also address disturbance minimization, timing of construction, minimization of activities that would attract prey and predators, and incorporation of the Wildlife Mortality Reporting Program and Raven Control Plan discussed above.</p> <p>B5 Flat-tailed Horned Lizard</p> <p><i>Mitigation Measures</i></p> <p>In accordance with the <i>FTHL Rangewide Management Strategy</i> (ICC 2003), the measures proposed below are designed to avoid, minimize, and/or compensate for potential direct and indirect effects construction of the proposed project may have on FTHL. The following will be implemented when conducting construction activities on the transmission line and within the creosote bush-white burr sage scrub vegetation in the southwestern corner of the solar energy facility:</p> <p>1. Prior to ground-disturbing activities, an individual shall be designated and approved by the USFWS and BLM as the Designated Biologist² (i.e. field contact representative) along with approved Biological Monitors as needed for construction, particularly within the Yuha MA. The Designated Biologist will be designated for the period during which on-going construction and post-construction monitoring and reporting by an approved biologist is required, such as annual reporting on habitat restoration. Each successive Designated Biologist will be approved by the BLM's Authorized Officer</p>	
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			<p>(i.e., BLM field manager, El Centro). The Designated Biologist will have the authority to ensure compliance with the conservation measures for the FTHL and will be the primary agency contact for the implementation of these measures. The Designated Biologist will organize and oversee the work of the biological monitors and have the authority and responsibility to halt activities that are in violation of the conservation measures. An organizational chart shall be provided to BLM prior to ground-disturbing activities with a clear chain of command and contact information (cell phones). A detailed list of responsibilities for the Designated Biologist is summarized below. To avoid and minimize impacts to biological resources, the Designated Biologist will:</p> <ul style="list-style-type: none"> • Notify BLM's Authorizing Officer and the USFWS at least 14 calendar days before initiating ground disturbing activities. • Immediately notify BLM's Authorized Officer and the USFWS in writing if the Project applicant is not in compliance with any conservation measures, including but not limited to any actual or anticipated failure to implement conservation measures within the time periods specified. • Conduct compliance inspections at a minimum of once per month during on-going construction after clearing, grubbing, and grading are completed, and submit a monthly compliance report to BLM's Authorized Officer until construction is complete. 	
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			<p>2. The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) will be delineated with stakes and flagging prior to construction activities. Where feasible, the areas shall be cleared of FTHL and fenced (according to the Strategy) to exclude FTHL from re-entering these construction areas, particularly in the MA and other high-use areas such as for staging of equipment or parking areas. Spoils will be stockpiled in disturbed areas lacking native vegetation or where habitat quality is poor, such as the agricultural fields rather than native desert. To the extent possible, disturbance of shrubs and surface soils due to stockpiling will be minimized. All disturbances, vehicles, and equipment will be confined to the flagged and cleared areas. To the extent possible, surface disturbance will be timed to minimize mortality to FTHL (see FTHL Construction Measure #7 below).</p> <p>3. Approved Biological monitor(s) will assist the Designated Biologist in conducting pre-construction surveys and in monitoring of mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities. The biological monitor(s) will have experience conducting FTHL field monitoring, have sufficient education and field experience to understand FTHL biology, be able to identify FTHL scat, and be able to identify and follow FTHL tracks. The Designated Biologist will submit the resume, at least three references, and contact information of the proposed biological monitors to</p>	
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			<p>the BLM, CDFG, and USFWS for approval. To avoid and minimize impacts to biological resources, the Biological Monitors will assist the Designated Biologist with the following:</p> <ul style="list-style-type: none"> • Be present during construction (e.g., grubbing, grading, solar panel installation) activities that take place in FTHL habitat to avoid or minimize take of FTHL. Activities include, but are not limited to, ensuring compliance with all impact avoidance and minimization measures, monitoring for FTHLs and removing lizards from harm's way, and checking avoidance areas (e.g., washes) to ensure that signs, and stakes are intact and that human activities are restricted in these avoidance zones. • At the end of each work day, inspect all potential wildlife pitfalls (trenches, bores and other excavations) for wildlife and then backfill. If backfilling is not feasible, all trenches, bores, and other excavations will be contoured at a 3:1 slope at the ends to provide wildlife escape ramps, or completely and securely covered to prevent wildlife access. • During construction, examine areas of active surface disturbance periodically, at least hourly, when surface temperatures exceed 29°Celsius (C; 85°F) for the presence of FTHL. <p>4. Prior to Project initiation, a worker environmental awareness program (WEAP) will be developed and implemented, and will be available in both English and Spanish. Wallet-sized cards summarizing this</p>	
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		<p>information will be provided to all construction, operation, and maintenance personnel. The education program will include the following aspects:</p> <ul style="list-style-type: none"> • biology and status of the FTHL, • protection measures designed to reduce potential impact to the species, • function of flagging designating authorized work areas, • reporting procedures to be used if a FTHL is encountered in the field, and • driving procedures and techniques, for commuting to, and driving on, the Project site, to reduce mortality of FTHL on roads. <p>5. FTHLs will be removed from harm's way during all construction activities, per conservation measure #6 below. FTHL removal will be conducted by two or more biological monitors when construction activities are being conducted in suitable FTHL habitat. To the extent feasible, methods to find FTHLs will be designed to achieve a maximal capture rate and will include, but not be limited to using strip transects, tracking, and raking around shrubs. During construction, the minimum survey effort will be 30 minutes per 0.40 ha (30 minutes per 1 ac). Persons that handle FTHLs will first obtain all necessary permits and authorization from the CDFG. If the species is federally listed, only persons authorized by both CDFG and the USFWS will handle FTHLs. FTHL removal surveys will also include:</p>	

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			<ul style="list-style-type: none"> A Horned Lizard Observation Data Sheet and a Project Reporting Form, per Appendix 8 of the RMS, will be completed. During construction, quarterly reports describing FTHL removal activity, per the reporting requirements described in Conservation Measure #1 above, will be submitted to the USFW, BLM, CDFG. <p>6. The removal of FTHLs out of harm's way will include relocation to nearby suitable habitat in low-impact (e.g., away from roads and solar panels) areas of the Yuha MA. Relocated FTHLs will be placed in the shade of a large shrub in undisturbed habitat. If surface temperatures in the sun are less than 24° Celsius (C) 75° Fahrenheit (F) or exceed 38°C (100° F), the Designated Biologist or biological monitor, if authorized, will hold the FTHL for later release. Initially, captured FTHLs will be held in a cloth bag, cooler, or other appropriate clean, dry container from which the lizard cannot escape. Lizards will be held at temperatures between 75° F and 90° F and will not be exposed to direct sunlight. Release will occur as soon as possible after capture and during daylight hours. The Designated Biologist or biological monitor will be allowed some judgment and discretion when relocating lizards to maximize survival of FTHLs found in the Project area.</p> <p>7. To the maximum extent practicable, grading in FTHL habitat will be conducted during the active season, which is defined as March 1 through September 30, or if ground temperatures are between 24°C (75° F) and 38 °C (100° F). If grading cannot be conducted</p>	
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		<p>during this time, any FTHLs found will be removed to low-impact areas (see above) where suitable burrowing habitat exists, (e.g., sandy substrates and shrub cover).</p> <p>8. Temporarily disturbed areas associated with transmission line construction and staging areas, will be revegetated according to a Habitat Restoration Plan (HRP) approved by the BLM, CDFG, and Service. The HRP must be approved in writing by the aforementioned agencies within 60 days of any vegetation-disturbing activities. Restoration involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.), and monitoring the restored area for a period of 5 years (or less if the restoration meets all success criteria). Components of the HRP will include:</p> <ul style="list-style-type: none">The incorporation of Desert Bioregion Revegetation/Restoration Guidance measures. These measures generally include alleviating soil compaction, returning the surface to its original contour, pitting or imprinting the surface to allow small areas where seeds and rain water can be captured, planting seedlings that have acquired the necessary root mass to survive without watering, planting seedlings in the spring with herbivory cages, broadcasting locally collected seed immediately prior to the rainy season, and covering the seeds with mulch.	

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			<p><i>Operations and Maintenance</i></p> <p>In order to reduce the potential impact to FTHL during O&M, the following will be implemented when conducting O&M along the transmission line and within the creosote bush-white burr sage scrub vegetation in the southwestern corner of the solar energy facility:</p> <p>9. No later than January 31 of every year the Project remains in operation, the Designated Biologist will provide the BLM, USFWS, CDFG, and the FTHL Interagency Coordinating Committee (ICC) via the BLM an annual Project FTHL Status Report, which will include, at a minimum:</p> <ul style="list-style-type: none">• A general description of the status of the project site within the MA.• A copy of the table in the Project biological monitoring report with notes showing the current implementation status of each conservation measure.• An assessment of the effectiveness of each completed or partially completed measure in avoiding and minimizing project impacts• A completed a Project Reporting Form from the Flat-tailed Horned Lizard Rangelwide Management Strategy (RMS) (ICC 2003)• A summary of information regarding any FTHL mortality in conjunction with the Project's Wildlife Mortality Reporting Program.• Recommendations on how conservation measures might be changed to more effectively avoid, minimize, and offset future project impacts on the FTHL.	
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			<p>10. The Designated Biologist or biological monitor(s) will evaluate and implement the best measures to reduce FTHL mortality along access and maintenance roads, particularly during the FTHL active season (March 1 through September 30). These measures will include:</p> <ul style="list-style-type: none"> • A speed limit of 15 miles per hour when driving transmission line access roads or maintenance roads within the solar energy facility. The Designated Biologist may reduce this speed limit to 10 mph in areas identified as active wildlife corridors as needed to reduced mortality. All vehicles required for O&M along the transmission line and within the Solar Energy Facility must remain on the designated access/maintenance roads. Cross country vehicle and equipment use outside of designated work areas shall be prohibited. • O&M activities including the washing of solar panels, weed abatement, or any other O&M activity that may result in ground disturbance will be conducted outside of the FTHL active season whenever feasible. • If any O&M activities must be conducted during the FTHL active season that may result in ground disturbance, such as weed abatement or vehicles requiring access outside of a designated access road, a biological monitor will be present during activities to reduce FTHL impacts. 	
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		<p>Implementation of these measures would be based on annual FTHL activity levels, the best professional judgment of the Designated Biologist, and site specific road utilization. FTHL found on access/maintenance roads will be relocated out of harm's way by the Designated Biologist or qualified FTHL monitor.</p> <p><i>Compensation</i> In accordance with the <i>Flat-tailed Horned Lizard Rangewide Management Strategy</i>, mitigation would be required for impacts to FTHL habitat, as shown in Table 4.12-11.</p> <p>FTHL are known to occur in the creosote bush-white burr sage scrub and desert wash vegetation along the proposed transmission corridors. In accordance with the <i>Rangewide Management Strategy</i>, compensation for permanent impact to this habitat within the MA will be at a 6:1 ratio.</p> <p>No mitigation for FTHL is required for the active agricultural land within the proposed solar energy facility, as it does not provide habitat for this species.</p> <p>B6 Nesting Raptors Raptors and active raptor nests are protected under California Fish and Game Code 3503.5, 3503, 3513. In order to prevent direct and indirect noise impact to nesting raptors such as red-tailed hawk, the following measures should be implemented:</p>	

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		<ul style="list-style-type: none"> Initial grading and construction within the Proposed Action site should take place outside the raptors' breeding season of February 1 to July 15. If construction occurs between February 1 and July 15, an approved biologist shall conduct a pre-construction clearance survey for nesting raptors in suitable nesting habitat (e.g., tall trees or transmission towers) that occurs within 500 feet of the survey area. If any active raptor nest is located, the nest area will be flagged, and a 500-foot buffer zone delineated, flagged, or otherwise marked. No work activity may occur within this buffer area, until an approved biologist determines that the fledglings are independent of the nest. <p>Mitigation for impacts to potential raptor foraging habitat would be conducted in concert with the purchase/acquisition of mitigation for FTHL habitat as detailed in Mitigation Measure B4. As the 6:1 mitigation ratio for FTHL habitat well exceeds the amount required for impacts to raptor foraging habitat, it is not anticipated that additional mitigation would be necessary.</p> <p><i>Operations and Maintenance Impact Mitigation</i> Mitigation for potential impact to raptors and other avian species due to collision with the proposed transmission lines is discussed below in Mitigation Measure B6 (Mitigation for Migratory Birds and Other Sensitive Non-migratory Bird Species), including the development of an ABPP.</p>	

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			<p>B7 Migratory Birds and Other Sensitive Non-migratory Bird Species</p> <p>In order to reduce the potential indirect impact to migratory birds, bats and raptors, an Avian and Bat Protection Plan (ABPP) will be prepared following the USFWS's guidelines and then implemented by the Project proponent. This ABPP will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations and will be developed by the applicant in conjunction with and input from the USFWS.</p> <p><i>Construction Conservation Measures</i></p> <p>Construction conservation measures to be incorporated into the ABPP include:</p> <ul style="list-style-type: none">• Minimizing disturbance to vegetation to the maximum extent practicable.• Clearing vegetation outside of the breeding season. If construction occurs between February 1 and September 15, an approved biologist shall conduct a pre-construction clearance survey for nesting birds in suitable nesting habitat that occurs within the proposed area of impact. Pre-construction nesting surveys will identify any active migratory birds (and other sensitive non-migratory birds) nests. Direct impact to any active migratory bird nest should be avoided.• Minimize wildfire potential.• Minimize activities that attract prey and predators.• Control of non-native plants	
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Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> Apply APLIC design guidelines for overhead utilities (APLIC 2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species. <p><i>Operations and Maintenance Measures</i> Operations and maintenance conservation measures to be incorporated into the ABPP include:</p> <ul style="list-style-type: none"> Preparation of a Raven Control Plan that avoids introducing water and food resources in the area surrounding the solar energy facility. Incorporate APLIC guidelines for overhead utilities as appropriate to minimize avian collisions with transmission facilities (APLIC 2006). Minimize noise Minimize use of outdoor lighting. Implement post—construction avian monitoring that will incorporate of the Wildlife Mortality Reporting Program <p>B8 Mountain Plover The following mitigation measures are designed to avoid and minimize direct and indirect harm or injury of federally listed and proposed listed mountain plover and their habitat, and to compensate for unavoidable direct and indirect effects resulting from project construction and operations and maintenance (O&M):</p> <ol style="list-style-type: none"> Speed limits along all transmission access roads and within the solar energy facility site should not exceed 15 miles per hour during construction and O&M. Transmission access for O&M activities 	

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Environmental Effects		Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			<p>shall be kept to the minimum necessary for operations. This limited access is designed to prevent wildlife mortality.</p> <p>2. An Avian and Bat Protection Plan (ABPP) will be prepared and approved by BLM and USFWS, prior to groundbreaking activities, which will outline conservation measures for construction and O&M activities that might reduce potential impacts to bird populations. The conservation measures in the ABPP will include:</p> <ul style="list-style-type: none"> Minimizing disturbance to vegetation to the extent practicable. Clearing vegetation outside of the breeding season. If construction occurs between February 1 and September 15, a qualified biologist shall conduct a pre-construction clearance survey for nesting birds in suitable nesting habitat that occurs within the proposed area of impact. Pre-construction nesting surveys will identify any active migratory birds (and other sensitive non-migratory birds) nests. Direct impact to any active migratory bird nest should be avoided. Minimize wildfire potential. Minimize activities that attract prey and predators. Control of non-native plants. Apply Avian Power Line Interaction Committee design guidelines for overhead 	
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Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>utilities (2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species.</p> <ul style="list-style-type: none">• Preparation of a Raven Control Plan that avoids introducing water and food resources in the area surrounding the solar energy facility.• Minimize noise.• Minimize use of outdoor lighting.• Implement post-construction avian monitoring that will incorporate a Wildlife Mortality Reporting Program. <p>3. A Wildlife Mortality Reporting Program will be prepared and approved by BLM prior to groundbreaking activities, and implemented during O&M of the solar energy facility site. This plan calls for identification and reporting of any dead or injured animals observed by personnel conducting O&M activities within the solar energy facility site and along the transmission line. An appropriate reporting format for dead or injured wildlife observed within the solar field and along the transmission line will be developed in coordination with the USFWS and the BLM. In addition, reporting of any dead or injured avian species found along the transmission line will follow the existing USFWS Bird Fatality/Injury Reporting Program (https://birdreport.fws.gov/).</p>	

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			<p>4. Prior to ground-disturbing activities, an individual shall be designated and approved by the USFWS and BLM as a Designated Biologist* (i.e., field contact representative). A Designated Biologist will be designated for the period during which on-going construction and post-construction monitoring and reporting by an approved biologist is required, such as annual reporting on habitat restoration. Biological Monitor(s) will assist the Designated Biologist in conducting pre-construction surveys and monitoring mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities.</p> <p>* A qualified Designated Biologist must have (1) a Bachelor's degree with an emphasis in ecology, natural resource management, or related science; (2) 3 years of experience in field biology or a current certification of a nationally recognized biological society such as The Ecological Society of America or the Wildlife Society; (3) previous experience with applying terms and conditions of a biological opinion; and (4) an appropriate permit and/or training if conducting focused or protocol surveys for listed or proposed species.</p> <p>5. Prior to project initiation, a Worker Education Awareness Program (WEAP) will be developed and implemented, and will be available in both</p>	
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			<p>English and Spanish. Wallet-sized cards summarizing this information will be provided to all construction, operation, and maintenance personnel. The education program will include the following aspects:</p> <ul style="list-style-type: none"> • Biology and status of the mountain plover. • Protection measures designed to reduce potential impacts to the species. • Function of flagging designating authorized work areas. • Reporting procedures to be used if a mountain plover is encountered in the field. • Driving procedures and techniques for commuting and driving on to the project site to prevent mortality of all wildlife species on roads. <p>6. In the event that continuing agricultural practices on the solar energy facility site are impractical after installation of the solar panels, the vegetation underneath the panels will be maintained as a short grass habitat that could support foraging activities for mountain plover. The timing and formula of any herbicide used for control of weeds will be in accordance with the proposed project's Weed Management Plan, which conforms to resource agency guidelines and standards designed to minimize impacts to sensitive biological resources. Specifically, herbicides should be applied to any agricultural fields outside of the mountain plover over-wintering season of November through February.</p>	
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Environmental Effects		Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			<p>B9 Jurisdictional Waters</p> <p>The Proposed Action will permanently impact 0.9 acre, and temporarily impact 0.8 acre of CDFG riparian habitat. No impacts to ACE jurisdictional resources are anticipated.</p> <p>As shown in Table 4.12-12, mitigation for the 0.9 acre of permanent impacts to CDFG riparian habitat is typically at a 2:1, while mitigation for the 1.7 acres of temporary impacts to CDFG riparian habitat is typically at a 1:1 ratio; totaling 3.5 acres of required mitigation.</p> <p>Mitigation for these impacts will be conducted in concert with the purchase/acquisition of mitigation for FTHL as detailed in Mitigation Measure B4 above. As the acreage for FTHL mitigation well exceeds the amount required for impacts to CDFG resources, it is not anticipated that additional mitigation would be necessary as long as the FTHL mitigation meets the requirements and approval of CDFG as riparian habitat mitigation. A Section 1600 Streambed Alteration Agreement would also need to be authorized for impact to CDFG resources.</p>	
1	Implementation of Alternative 1-Alternative Transmission Line Corridor would impact vegetation communities, sensitive species, and jurisdictional waters.	S	<p>MM B2 through B9 identified above for PA will also be required to be implemented for the Alternative 1-Alternative Transmission Line Corridor, if this Alternative were to be selected.</p> <p>B10 Vegetation Communities</p> <p>Mitigation for the permanent and temporary impacts to creosote bush-white burr sage scrub, desert saltbush scrub, arrow weed thicket, and desert wash shall be</p>	LTS
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			<p>accomplished through required mitigation acres. Table 4.12-13 identifies the mitigation ratio/requirement and required mitigation for each vegetation community.</p> <p>B11 Flat-tailed Horned Lizard Habitat Compensation In accordance with the <i>Flat-tailed Horned Lizard Rangewide Management Strategy</i>, mitigation would be required for impacts to FTHL habitat, as shown in Table 4.12-14.</p>	
2	Implementation of Alternative 2-Reduced Solar Facility Site would impact vegetation communities, sensitive species, and jurisdictional waters.	S	<p>MM B2 through B8 identified above for PA will also be required to be implemented for the Alternative 2-Reduced Solar Energy Facility Site, if this Alternative were to be selected.</p> <p>B12 Vegetation Communities Mitigation for the permanent and temporary impacts to creosote bush-white burr sage scrub, desert saltbush scrub, arrow weed thicket, and desert wash shall be accomplished through required mitigation acres.</p> <p>Table 4.12-15 identifies the mitigation ratio/requirement and required mitigation for each vegetation community.</p> <p>B13 Flat-tailed Horned Lizard Habitat Compensation In accordance with the <i>Flat-tailed Horned Lizard Rangewide Management Strategy</i>, mitigation for the Alternative 2-Reduced Solar Energy Facility Site would be required for impacts to FTHL habitat, as shown in Table 4.12-16.</p>	LTS
3	No new development is proposed under the No Action/No Project Alternative. Therefore, no significant impact would occur.	NE	No mitigation recommended.	NE
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Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.13 Paleontological Resources			
<p>PA Paleontological resources potentially located on the project site could be adversely affected during construction of the solar energy facility and transmission lines as a result of disturbance by grading or construction activities; unauthorized, unmonitored excavations; unauthorized collection of fossil materials; dislodging of fossils from their preserved environment (fossils out of context); and/or physical damage of fossil specimens.</p> <p>No impacts to paleontological resources are anticipated during operation of the Proposed Action.</p>	S	<p>PR1</p> <p>Prior to grading or any ground disturbance, a paleontological field survey shall be conducted for the project site. The paleontological field survey and subsequent monitoring activities shall be in accordance with the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources."</p> <p>A. Definition of Field Surveys. Field Surveys are pedestrian surveys to be performed in areas where significant fossils can be expected to occur within the boundary and immediate vicinity of the anticipated disturbance, or where the probability of encountering significant fossils is unknown.</p> <ol style="list-style-type: none"> Field surveys are performed prior to any surface disturbing activities. Before conducting field surveys, the project location shall be as final as possible and any staking of the location shall be complete. Surveys are conducted by a BLM-permitted consulting paleontologist hired by the project proponent. <ol style="list-style-type: none"> Surveys shall be performed by a consulting paleontologist holding a valid BLM Paleontological Resources Use Permit. Submission of reports may be done directly by the paleontologist to the BLM. The project proponent is also responsible for all costs associated with the survey, including the consulting paleontologist's fees and charges, all survey costs, fossil preparation 	LTS

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Environmental Effects	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>to the basic identification stage, analyses, reports, and curation costs directly related to mitigation of the project's anticipated impacts. Any required monitoring and mitigation costs are also the responsibility of the project proponent. These costs are to be negotiated between the project proponent and the consulting paleontologist prior to beginning any data gathering, analysis, or field work, and these negotiations do not require BLM involvement or approval. Any new, additional, or modified curation agreements between the paleontologist and the official repository must be in place prior to starting field work.</p> <p>(b) Authorization for an activity to proceed cannot be given by a consulting paleontologist. Performance of the survey, either by a consulting paleontologist or BLM staff, or submission of the report DOES NOT constitute approval for the activity to proceed. The BLM must review the report, including adequacy of the field methods and findings. The Authorized Officer must approve the findings and determine the need for monitoring prior to approval to proceed.</p> <p>B. Conducting Field Surveys. Field surveys must be performed by the Principal Investigator or an approved Field Agent or Field Monitor (as defined in</p>	

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			<p>the following section) as authorized under a Paleontological Resource Use Permit. Field surveys and collections performed as a mitigation measure are not intended to be scientific research studies, but are meant to identify, avoid, or recover paleontological resources to prevent damage or destruction from project activities. However, proper scientific techniques and procedures must be utilized during all mitigation efforts. Safety should be an important consideration; therefore, surveys should not be attempted on cliff faces, in open, non-reinforced trenches deeper than five feet, or other unsafe areas.</p> <ol style="list-style-type: none"> 1. The scope of the survey is dependent upon the scale of the project. Small projects are defined as less than 10 acres, or, if linear, less than five miles; large projects exceed those dimensions. 2. At the start of field work, the consulting paleontologist (paleontologist) must contact the Paleontology Coordinator in each affected Field Office who may require a visit to that office. <p>After an initial visit each year, the paleontologist may contact the Field Office by telephone or email prior to subsequent field trips, at the discretion of the Field Office. Information about the survey schedule, additional personnel, emergency field contact information, and any other pertinent data shall be provided to the Paleontology Coordinator. The Field Office will inform the paleontologist of any conditions that</p>	
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			<p>may impact the survey, such as fire danger or restrictions, drought restrictions, wildlife timing restrictions, management restrictions, road restrictions or construction, and any other relevant information.</p> <p>3. During the field survey, the paleontologist surveys, locates, and documents all paleontological resources within 200 feet of the proposed project location or corridor, or less distance upon approval.</p> <p>(a) Where significant paleontological resources are at risk, data collection alone does not constitute mitigation of damage. All significant fossils that may be damaged or destroyed during project activities must be collected, along with all relevant contextual and geographical data. Specimens must be collected during the survey or prior to commencement of any surface-disturbing activities.</p> <p>(b) In many cases, isolated gar scales, chelonid (turtle) carapace or plastron fragments, crocodile and fish teeth, and unidentifiable bone fragments do not need to be collected. The location must be recorded and a description of the fossil material noted in the field notes and on a BLM Locality Form as part of the report. The context of these types of fossils should be considered, as they may represent rare occurrences or unusual faunal associations, and thus may be scientifically important</p>	
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			<p>and must be documented and voucher specimens collected where appropriate.</p> <p>(c) Occurrences of plant or invertebrate fossils should be recorded and representative examples or voucher specimens collected where appropriate. Additional mitigation measures may be appropriate in some cases for these types of localities.</p> <p>(d) If a large specimen or a concentration of significant fossils is located during the field survey, the available time and/or personnel may not allow for full recovery during the survey. The specimen(s) and locality(ies) should be stabilized as needed, and a determination made as to whether avoidance is necessary or whether full recovery of the specimen is required at a later time prior to disturbance activities. The Authorized Officer and project proponent must be notified, the mitigation alternatives discussed including funding for recovery, and a decision reached as soon as possible. If avoidance or later recovery is selected for mitigation, the find should be stabilized, buried if needed to protect the fossils and context, and appropriate measures implemented to reduce adverse effects from natural or human causes.</p> <p>4. During the survey, locations or areas that exhibit a lithology suggesting a high probability of subsurface fossil material must be recorded, and a recommendation for the need for on-site</p>	
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		<p>monitoring, spot-checking, or testing shall be made in the report. This may include areas where no fossil material was found on the surface during the survey. The recommendation should consider the size and type of planned disturbance, such as the depth of a trenching operation or the acreage of surface disturbance.</p> <p>5. Surveys must be performed only during times when the ground is visible. Biological timing restrictions, such as critical nesting or birthing times, may confine or delay field activities.</p> <p>C. Report of Survey Findings. After completion of the field survey, the paleontologist must file a written report with the BLM and the designated repository. This report must summarize the results of the survey as well as appropriate geological and paleontological background information as described below. It should also include any recommendations for on-site monitoring or other mitigation. For small projects (less than 10 acres), the report must be filed within 30 days after completion of the survey unless the BLM has specifically approved a different time. The time frame for submission of the report for large projects should be negotiated during project scoping. On a case-by-case basis, approval to begin project activities may be granted for those portions of the project area noted to be less paleontologically sensitive prior to final approval of the report.</p>	

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			<ol style="list-style-type: none"> 1. Reports of the general findings and the background information must be submitted to the BLM project manager or Authorized Officer (if appropriate), the Paleontology Lead or Regional Paleontologist, and each affected Field Office. Reports must include the information and details as specified on page 9 of Attachment 1 of the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources," as applicable. 2. Exact locations of fossil localities contained in these reports are considered sensitive and must not be included in any public document. The BLM locality form (8270-3) or equivalent, 1:24000 scale map showing the localities, and any other information containing specific fossil locations may be bound separately or placed in a separate section to allow for preservation of confidential locality data. A copy of this confidential section must be submitted to the Paleontology Lead (in some cases, two copies may be required). A copy for each affected Field Office may be required. Another copy must be submitted to the official repository with the collected materials. 3. BLM GPS recording and data standards must be used to report paleontological locality data. Existing USGS topographic maps are often based on the NAD27 standard, so locality data calculated from a map base must be converted before submission. Data must be recorded and reported with a mean error of +/- 	
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			<p>12.5 meters or less, at a 95 percent confidence level. For small localities, data should be reported as point data. Larger polygonal localities should be reported using coordinates of a centroid and a description of the approximate size, or the key coordinate points of a bounding polygon. Linear features, such as roads or surveyed project boundaries, must be reported as line data. The 1:24000 scale map(s) accompanying the locality forms should graphically illustrate the locality, either as a point or an outline of the locality as appropriate, and be clearly labeled with the locality or field number.</p> <p>D. Report Approval. The Authorized Officer will analyze the Survey Report for adequacy within 30 working days of receipt. Notification accepting the report, or explaining any identified deficiencies, will be sent to the consulting paleontologist and the project proponent with a copy placed in the project file. Any deficiencies must be corrected as soon as possible, usually initiated within five working days, and the report must be resubmitted for approval. Any resubmissions must be prompt, but consideration will be made for the amount of time needed for major corrections. Deficiencies directly affecting the survey, such as inadequate survey procedures or incomplete data, must be corrected before granting approval for the project to proceed. Deficiencies not directly affecting the survey, such as curation issues, will not prevent</p>	
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		<p>approval of the project, but must be corrected as soon as possible.</p> <p>Determination of Further Mitigation Requirements. Based on the field survey, the need for additional mitigation to protect paleontological resources shall be determined. The Authorized Officer, in consultation with Regional Paleontologist or the Paleontology Lead, shall analyze the Survey Report for survey findings and any mitigation recommendations. If no further mitigation is needed, the Authorized Officer will promptly notify the project proponent that there are no additional paleontological surveys or mitigation measures required, and the project may proceed pending any other approvals. The project file must be documented indicating acceptance of the survey report and identifying any additional mitigation requirements. If it is determined that additional mitigation efforts are needed to protect or preserve the paleontological resources, the project proponent will be notified as soon as possible. The Authorized Officer and/or the Paleontology Lead usually develop and approve the mitigation procedures or recommend a project be redesigned in consultation with the project proponent. Factors such as locality or specimen significance, economics, safety, and project urgency will be considered when developing mitigation measures. Additional mitigation measures shall be developed and implemented as timely as possible so as not to delay project actions.</p> <p>A. Relocation. The preferred mitigation technique is to change the project location based on the results of</p>	

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			<p>the field survey. Relocation, however, may necessitate a field survey of the new area, as well as resurveys by other resource specialists. Anticipation of this contingency prior to or during the original survey may allow for survey of an expanded area at the same time.</p> <p>If relocation will eliminate impacts and is acceptable to all parties, then a report to the file, including a map showing the original and revised locations, must be completed documenting the change. Approval for the project to proceed in the revised location may then be granted by the Authorized Officer to the project proponent. When avoidance is not possible, appropriate mitigation may include excavation or collection (data recovery), stabilization, monitoring, protective barriers and signs, or other physical and administrative protection measures.</p> <p>B. Deferred Fossil Collection. In some cases, fossil material may have been identified, but not completely collected during the initial field survey, such as a partial dinosaur or other large fossil assemblage. It may be possible to complete the recovery of this material and all related data prior to beginning construction activities, and thus mitigate the adverse impact. This may require a shift in the project schedule and must be coordinated with the project proponent.</p> <p>Approval by the Authorized Officer for the project to proceed will only be granted when recovery of the</p>	
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		<p>fossil material and field data is completed. A report to the file and the project proponent documenting the recovery and indicating that no further mitigation is required must be completed, and the report signed by the Authorized Officer. If the discovery cannot be fully collected within the available time frame, it may have to be avoided by relocating or redesigning the project.</p> <p>PR2 Based on the field survey and reporting results identified in Mitigation Measure PR1, a Monitoring Plan shall be developed and implemented (if required).</p> <p>A monitoring plan can be developed by a qualified paleontologist hired by the proponent who holds a current California BLM Paleontology Use Permit. The plan must be appropriately scaled to the size and complexity of the anticipated monitoring. If developed by a third party, the appropriate Paleontology Lead or Regional Paleontologist shall review the plan for sufficiency prior to acceptance. Monitoring of the project may proceed when the monitoring plan is approved by the Authorized Officer. A monitoring plan indicates the treatments recommended for the area of the proposed disturbance and must minimally address the following:</p> <ol style="list-style-type: none">1. The recommended approach to additional specimen collection, such as total or partial recovery or sampling; and,2. The specific locations and intensity of monitoring or sampling recommended for each geologic unit, stratigraphic layer, or area impacted.	

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			<p>Monitoring intensity is determined based on the analysis of existing data and/or field surveys and any previous monitoring efforts.</p> <p>Types of Monitoring. There are two types of monitoring: 1) on-site, performed during ongoing operations, and 2) spot-checks, performed during or after disturbance, or at key times during the progress of the project.</p> <p>1. On-site monitoring – In areas with a high probability for buried fossils, the presence of a monitor at the site of disturbance at all times that disturbance is occurring may be warranted. The need for a full-time monitor is based on the findings of the survey, the local geology, and the proposed actions. Efforts will be made to complete fossil recovery with minimal work stoppage. However, in some cases, an extended period of work stoppage may be required, so coordination with the project proponent or representative is important. Prior to beginning the monitoring work, the monitor, company supervisor, and machinery operators shall agree on procedures for brief work stoppages to allow for examination of finds. It is critical that safety be of utmost concern because of the presence of heavy machinery and open trenches.</p> <p>The monitor must assess any finds, collect loose fossil material and related data, and take appropriate steps to mitigate any current or potential damage. Consideration of the size of the expected fossils must also be considered; for example, microfossils may not be visible during excavation activities. It may be</p>	
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		<p>appropriate to collect samples of matrix for later recovery of microvertebrate fossils or other analyses. Activities planned to occur during night time should be assessed relative to the potential to uncover significant fossils. Fossils may not be visible at night in trenching or grading operations, so construction activities may need to be suspended during night time in sensitive areas.</p> <p>2. Spot-checking – In areas with a moderate to high probability for unknown fossil material, it may be more appropriate to check only at key times rather than maintain continuous monitoring of operations. Key times for scheduling spot-checking are when the fossil-bearing bedrock is exposed to view or prior to placing soil material back into the excavation. Examples of these key times may be when a pipeline trenching operation is complete but before pipe is placed and the trench backfilled or prior to redistribution of topsoil. Spot-checking requires close coordination with the project proponent and the paleontologist, and usually requires the paleontologist to be available on short notice. In some instances, it may be advantageous to allow rain and/or wind to erode away loose matrix and concentrate fossil material to increase visibility. The paleontologist will coordinate with the project proponent to allow sufficient time for this action to occur, as appropriate to conditions, expected fossil material, and construction schedules.</p>	

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		<p>The paleontologist should report potentially fossiliferous areas in the final report to allow for future assessment of sites, even if no fossils were located during the project monitoring.</p> <p>Types of Field Personnel. It may be necessary to employ a number of paleontology field personnel simultaneously. There may be a lack of fully qualified paleontologists to perform all the necessary monitoring during the scheduled times of construction. Use of additional personnel for field work is permissible, but Field Agents and Field Monitors (described below) must be requested by the Permittee and authorized by the BLM prior to field work.</p> <p>1. Principal Investigator – The person listed as Permittee (Permit item 1a) on the Paleontological Resources Use Permit is the Principal Investigator (PI) and is responsible for all actions under the permit, for meeting all permit terms and conditions, and for the performance of all other personnel. This person is also the contact person for the project proponent and the BLM.</p> <p>2. Field Agent – Other qualified paleontologists may perform field work independently of the PI under the conditions of this permit. Résumés must be submitted to BLM and must demonstrate qualifications equivalent to those of Permittees. Field Agents must be listed on the permit under “Name(s) of individual(s) responsible for planning, supervising, and carrying out fieldwork” (Permit item 8) or authorized in a separate letter from BLM. They</p>	
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			<p>must follow all the permit terms and conditions applicable to field work and must carry a copy of the permit, included terms and conditions, and separate authorizing letter (if used) while in the field. Field work results must be reported to the PI, who will then submit required reports.</p> <p>3. Field Monitor – Field Monitors may be utilized for supplemental on-site monitoring of surface-disturbing activities when the PI or a Field Agent is performing field work elsewhere. Field Monitors must have sufficient field experience to demonstrate acceptable knowledge of fossil identification, collection methods, and paleontological techniques. The PI must supply a summary of each person's experience to the BLM prior to field work. Field Monitors must be approved by the BLM prior to performing field work and must carry a copy of the permit while in the field. The PI or Field Agent must be in communication with the Field Monitor using a portable communication device, such as a cell phone or two-way radio, and are required to be near enough to the Field Monitor to allow for prompt examination of all fossil discoveries (no more than two hours away) by the PI or Field Agent.</p> <p>4. Field Assistant – Additional personnel not meeting the previously cited experience or knowledge levels may be utilized during field work, but must be under direct, on-site supervision of either the PI or a Field Agent as part of a supervised crew. Field assistants must have at least four to eight hours of training or experience received from a qualified paleontologist</p>	
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		<p>in identifying paleontological resources prior to performing field work or when first utilized in this capacity. A listing of all Field Assistants (including contact information) must be supplied prior to any field work. All discoveries made by a Field Assistant must be immediately reported to the PI or Field Agent on site. To ensure proper supervision, an appropriate ratio of Field Assistants per PI or Field Agent must be maintained. The complexity of the project, the area to be covered, and the experience of the assistants are some of the factors that should be considered in determining the proper ratio, but commonly five to seven assistants is the maximum number that can be supervised by one PI or Field Agent.</p> <p>Work Stoppage. If significant fossil material is discovered during construction activities, the PI, Field Agents, and Field Monitors have the authority to temporarily halt surface disturbing actions until an assessment of the find is completed and appropriate protection measures taken. Efforts will be made to complete fossil recovery with minimal work stoppage. However, in some cases, an extended period of work stoppage may be required. If the paleontological resource can be avoided, mitigated, or collected within approximately two hours, work may resume after approval from the PI or Field Agent, and the Authorized Officer must be notified as soon as possible of the discovery and any mitigation efforts that were undertaken. If the find cannot be mitigated within a reasonable time (two hours), the concurrence of the Authorized Officer or official</p>	

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			<p>representative for a longer work stoppage must be obtained. Work may not resume until approval is granted from both the PI or Agent and the Authorized Officer.</p> <p>PR3 Upon completion of all field work, including survey and monitoring, the PI must submit within 30 days, a written final report to the Authorized Officer, Paleontology Lead, and the designated repository. A copy of the report may be provided to the project proponent if required, but without the BLM Locality forms. Reports must include the details and information as specified on page 14 of Attachment 1 of the BLM's "Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources," as applicable.</p> <p>PR4 When the final report with the specimen inventory and the signed receipt of confirmation of museum deposition are accepted by the BLM, mitigation for paleontological resources related to the project will be considered completed. The project proponent will be notified in writing as soon as possible by the Authorized Officer after consulting with the Paleontology Lead or Regional Paleontologist and a copy of the notification placed in the project file.</p> <p>The responsibility of the project proponent ends when appropriate mitigation related directly to the project is completed and final approval is received from the Authorized Officer. Any additional field collection, quarrying, final specimen preparation, etc. will be</p>	
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			<p>considered to be research, and will be the responsibility of the consulting paleontologist or another approved party. The project proponent will not be held responsible for completion of any research project. However, the project proponent can choose to sponsor further research. A separate research permit will be required for additional research activities.</p> <p>PR5 Fossil specimens and related data collected from public lands during field surveys and mitigation remain the property of the Federal government. They must be placed in the approved repository(s) identified on the Paleontological Resource Use Permit held by the consulting paleontologist as soon as practical and receipt(s) of collections submitted to the BLM, but no later than 60 days after all field work is completed. Written approval from the Paleontology Lead or Regional Paleontologist is required if additional time is needed for transfer of all specimens and field data.</p>	
1	Same as PA.	S	Same as PA.	LTS
2	Same as PA.	S	Same as PA.	LTS
3	No significant impact would occur.	NE	No mitigation recommended.	NE
4.14 Socioeconomic Conditions and Environmental Justice				
PA	No significant impact would occur.	NE	No mitigation recommended.	NE
1	Same as PA.	NE	Same as PA.	NE
2	Same as PA.	NE	Same as PA.	NE
3	No significant impact would occur.	NE	No mitigation recommended.	NE
4.15 Recreation				
PA	No significant impact would occur.	NE	No mitigation recommended.	NE
1	Same as PA.	NE	Same as PA.	NE
2	Same as PA.	NE	Same as PA.	NE
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4.16 Special Designations			
PA No significant impact would occur.	NE	No mitigation recommended.	NE
1 Same as PA.	NE	Same as PA.	NE
2 Same as PA.	NE	Same as PA.	NE
5.0 Cumulative Impacts			
PA The addition of the Preferred Action Alternative's trips to the Year 2012 plus cumulative conditions would result in a cumulatively significant impact to the following intersections: <ul style="list-style-type: none"> Forrester Road at I-8 WB Ramp; and, SR-98 at Clark Road. 	S	<p>CUM1</p> <p>A Mitigation Monitoring and Reporting Program shall be established to determine if the two intersections would operate at un-acceptable LOS starting in Year 2012 and beyond annually until the project construction is completed. If un-acceptable LOS is documented in Year 2012, then a fair share contribution or payment of applicable Transportation Impact Fee is recommended as the mitigation measure. It should be noted that the fair share participation is based on the project's construction traffic that is significantly higher than the project's traffic after completion of construction.</p> <p>If un-acceptable LOS is not documented at the two cumulatively impacted intersections based on the mitigation monitoring and reporting program, then the applicant's fair share contribution (based on construction traffic) should be refunded. If the County desires some form of mitigation, then it is recommended that the fair share contribution (based on permanent operation employees) be conditioned.</p>	LTS
1 Same as PA.	S	Same as PA.	LTS
2 Same as PA.	S	Same as PA.	LTS
3 No new development is proposed under the No Action/No Project Alternative. Therefore, no significant impact would occur.	NE	No mitigation recommended.	NE

Source: BRG Consulting, Inc., 2010.

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